

EUROPEAN NEWS

Portugal takes up hard line on EEC entry

BY QUENTIN PEEL IN BRUSSELS

NEGOTIATIONS on enlargement of the EEC resume today with Portugal suddenly assuming the role of hard bargainer, after five days of top-level talks last week resolved virtually all the outstanding issues with Spain.

Officials of the European Commission and from Italy, current president of the EEC Council of Ministers, were yesterday putting together a financial package intended to answer Portugal's concerns over the membership terms on offer.

The plans would provide for partial reimbursement of Portugal's payments into the Community budget over the transitional period of seven years, amounting to perhaps as much as Ecu 1bn (£600m). They would ensure that the new member would be a net beneficiary from EEC funds virtually from the intended first day of membership, January 1 1986.

OVERSEAS NEWS

WHITES TOLD TO AVOID TOWNSHIPS

S. Africa rounds up protesters

BY ANTHONY ROBINSON IN CAPE TOWN AND JIM JONES IN JOHANNESBURG

SOUTH AFRICAN police yesterday arrested black church leaders and more than 200 demonstrators who were marching on Parliament in Cape Town to present a petition to President P. W. Botha.

The petition expressed solidarity with the dead victims of recent rioting in the Eastern Cape and called on the Government to negotiate with representative black leaders. It also asserted that the official account of the police shootings which killed 18 people on the 25th anniversary of the Sharpeville massacre last Thursday was not true.

At the same time, whites throughout the country were advised yesterday to stay out of black townships. They were urged by the authorities to seek police advice and assistance before travelling through the townships.

The Cape Town demonstrators set off from a Methodist church half a mile from Parliament after a memorial service for the dead addressed by church leaders from the Eastern Cape's black Anglican parishes. The Rev Miroslav Dabu told the packed congregation: "God says to South Africa here now, stop killing people, stop killing our children. The system of government under which we live has to be challenged and wiped out."

The protest march was led by the Rev Alan Boesak, a leading patron of the United Democratic Front. Police waited until the demonstrators reached the Parade Ground, a large open space in front of the Town Hall, before stopping the march and arresting Rev Boesak and 238

Philippines credit delayed

BY ALEXANDER NICOLL

A DECISION from the International Monetary Fund (IMF) on disbursement of the second tranche of a SDR 615m (£510m) standby facility, for the Philippines, agreed last December is expected to be delayed until the second half of April.

An IMF mission has just returned from Manila and will report to the Fund's executive board on whether the Philippines is meeting the economic

Iraqis hit Gulf tanker and raid three cities

By Our Middle East Staff

IRAQ KEPT up its military pressure on Iran yesterday attacking shipping in the Gulf and launching further air raids on Iranian cities.

A editor in Baghdad's largest circulation newspaper pledged that Iraq would expand the war to "every corner of Iran" if Tehran did not agree to a comprehensive peace.

Meanwhile, Mr Louis le Grange, the Minister of Law and Order yesterday flew in a helicopter over Kwanobule and Langa townships, the scene of last week's police shootings and violence, before returning to Cape Town to take part in a heated debate on the incidents in Parliament.

Sporadic incidents of violence continued throughout the country yesterday as public debate on the causes of past weeks' deaths grew increasingly vociferous. In Cape Town on Monday the white opposition Progressive Federal Party (PFP) issued a comprehensive report on last Thursday's shootings in Uitenhage, which differs sharply from the official version.

The report was compiled from affidavits taken by a team of PFP parliamentarians, which visited the area immediately after the shootings last Thursday. According to the PFP report, the funeral procession which was fired upon by police was peaceful, and its participants were not armed with sticks, spears or petrol bombs, as alleged by the police.

It said that no evidence could be found to corroborate police allegations that the crowd was fired upon only in self-defence after an armoured police vehicle had been surrounded.

A further statement from Baghdad said that its aircraft had also attacked Tehran, the Iranian capital, Kermanshah and Hamedan.

The Iranian news agency confirmed the attack on Tehran and claimed that several houses and a mosque had been damaged in the south of the city. Nine people were said to have been killed.

In Washington, Mr George Shultz, the US Secretary of State, held talks with Mr Taqiz Asizi, Iraq's Foreign Minister, on the latest upsurge in the Gulf war. A State Department spokesman said that Mr Shultz also saw the meeting as an opportunity to express "the absolutely firm opposition of the US to the use of chemical weapons in violation of international conventions wherever and whenever such use may occur."

Opposition within Israel's Cabinet to a speedy pull-out is weakening as the disastrous consequences of the Israeli

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CHINA'S National People's Congress opens in Peking today amid ominous signs of economic problems and a political row between far senior leader Deng Xiaoping's liberal reforms and younger reformer Zhao Ziyang.

Among the problems thrown up by the hectic pace of economic growth and Deng's reforms are corruption, waste, embezzlement, inflation and hints of overheating the economy.

While Congress, the annual assembly of representatives from all over China, is little more than a rubber stamp, Premier Zhao Ziyang's report on government work and Finance Minister Wang Bingqian's budget are both likely to shed light on the difficulties and policy disputes facing the Government.

Last week's reshuffle of senior officials following weeks of press reports of corruption was an indication of how seriously the leadership views the situation. It followed a visit to Peking last month from the respected leader Bo Yibo which attacked party and government workers for illegally making money out of China's economic liberalisation.

This clampdown on crime is accompanied by a growing attack on "vulgar" literature. The Peking Workers' Daily 10 days ago launched a diatribe against "spiritual pollution," evoking the campaign waged last year against Western influences which alarmed both Chinese liberals and foreign

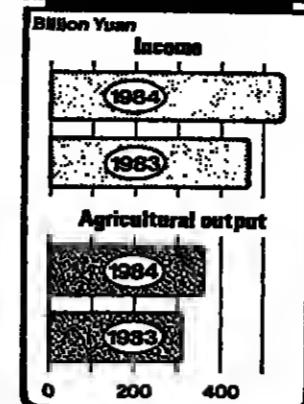
businessmen.

The main proponent of the campaign against spiritual pollution, party propaganda chief Deng Liqun, reappeared on Monday after months out of sight, telling visiting U.S. journalists that tighter control of the economy was scheduled.

What was seen as a sign that the power of the hard-liners is growing once more.

Besides giving party managers the chance to run big businesses and sail away huge tax-free profits, the reforms have also become the victim of their own success. Production is booming at never before,

CHINA ECONOMY GROWTH



Billion Yuan

Income

Agricultural output

1984

1983

0 200 400

China AND South Korea have reached an amicable settlement over last weekend's incident in which a Chinese torpedo boat on a training exercise drifted into South Korean waters after an attempted ramming killed six and wounded two members of the crew, Steven B. Butler, reports from Seoul.

The South Korean Government has accepted China's formal apology for a violation of Korea's territorial waters on Saturday when China sent naval vessels in search of the lost boat, and says it will return boats and crew today to the Yellow Sea, half way between the two countries.

The rapid settlement of the incident underscores the im-

portance in relations that has taken place between the two countries over the past two years, after they had reached agreement on the return of a hijacked airliner and its crew to China.

The countries still do not formally recognise each other, but trade has grown rapidly and exchanges of athletes are increasing. Prominent Korean businessmen are known to have visited China recently.

Neither country has sought to publicise the relationship for fear of offending Taiwan, in the case of South Korea, or North Korea. In the case of China, North Korea is clearly more of a stumbling block because of its importance to China's security.

but unevenly. In consequence, capital investment, money in circulation and inflation are booming too.

On the credit side, output value of industry and agriculture were both up last year by about 14 per cent, the State Statistical Bureau's report on 1984 revealed earlier this month. Unofficial Chinese reports say they rose another 12 per cent in January and February 1985.

Deng's agricultural reforms, successful though they are, have proved enormously expensive for the state which buys from the farmer at high prices and sells to the townsfolk at the old, lower rate.

Under the new reforms

China's loosening of state control is in theory to be replaced by financial and tax levels, but the banking system is not strong

enough to control expenditure and tax evasion. Disclosures that the now-dismissed Auditor-General, Yin Mingtai, was responsible for a loss of some \$1.67bn (£1.2bn) last year through "irregularities" reveal the scale of losses.

Peking's encouragement to get rich has boosted the black market, with officials cornering the market in scarce goods and immediately reselling them at much higher prices. The Government at all levels has been urged to stop this and similar abuses, but without a round-up of the big-dominated commerce it is difficult to see how control can be maintained.

Perhaps the most alarming factor is the price increase which in some cases has reached 50 per cent. The official 1984 inflation figure was just below 3 per cent, rising to 4 per cent by the end of the year, but the State Statistical Bureau conceded that on some items it was far higher. This was the direct consequence of the last round of reforms when many items were freed from control in October to stimulate a more market-oriented economy.

Since the market economy is the lynchpin of Deng's planned reforms, he is unlikely want to reverse his controls, though he may be forced to do so.

With controversy raging over both reform and cultural freedoms, this should be a Congress to remember.

Peres hints at speeded up withdrawal from Lebanon

BY TONY WALKER IN TEL AVIV

MR SHIMON PERES, Israel's Prime Minister, indicated yesterday that the Israeli withdrawal from South Lebanon would be over much sooner than originally planned.

Senior government spokesmen are saying privately that Israel could be out of Lebanon by the middle of May, well ahead of the September deadline.

Mr Peres said yesterday on a visit to a town in northern Israel: "We will perhaps get out of Lebanon much faster than people think."

Opposition within Israel's Cabinet to a speedy pull-out is weakening as the disastrous consequences of the Israeli

IMF 'upbeat' on Israel

BY MICHAEL THOMPSON-NOEL IN PERTH

ISRAEL'S Finance Minister, Mr Yitzhak Modai, said yesterday the International Monetary Fund's preliminary annual report on Israel was more upbeat than in previous years despite its call for steeper budget cuts. Renter reports

by Israel's retaliatory "iron fist" policy.

Under Israel's three-stage withdrawal plan it was proposed that in stage one Israeli troops would pull back to the Litani River, then would follow the troops facing the Syrians in the eastern Bekaa Valley leading to a complete withdrawal to Israel's international border.

Mr Peres now appears to be suggesting that stages two and three would be telescoped together.

In general terms, I can say that it was the first time for years that we received a 'just passing' mark," Mr Modai told Armed Forces Radio. "In the past we always flunked."

The report, submitted to the Bank of Israel last week, said the Government, battling 400 per cent annual inflation, must nearly double its £1.1bn cut from the \$235m budget for 1985-86.

He claimed that cash bidding — due to be introduced shortly for five potentially lucrative blocks of the Timor Sea, off Northern Australia — would not divert funds away from exploration, but might add substantially to the investments available by drawing in newcomers.

Sen Evans, who is new to his

Cash bid interest claimed for Australian oil search

BY MICHAEL THOMPSON-NOEL IN PERTH

AUSTRALIA'S Minister for Resources and Energy, Sen Gareth Evans, claimed yesterday that a number of foreign oil companies with no previous experience in Australia had expressed interest in competing in cash bidding auctions for potentially lucrative Australian offshore oil exploration permits.

He claimed that cash bidding — due to be introduced shortly for five potentially lucrative blocks of the Timor Sea, off Northern Australia — would not divert funds away from exploration, but might add substantially to the investments available by drawing in newcomers.

Cash bidding for choice offshore acreages is due to replace the current "work programme" system, seen by the Government as inflexible and inefficient.

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AMERICAN NEWS

Baker sees continued economic expansion

MR JAMES BAKER, the US Treasury Secretary, said yesterday that there was every reason to believe that the US economic expansion would continue, Reuter reports from Washington.

Mr Baker, testifying before the House of Representatives appropriations subcommittee on the Treasury, said the economy was "quite sound," provided Congress agreed to the deficit reductions sought by President Ronald Reagan.

Mr Baker said he was not particularly concerned about the 2.1 per cent "flash" estimate of first-quarter 1985 gross national product, which some analysts had viewed as a slowdown in economic growth. He said the estimate had varied almost 2 per cent in every quarter of 1984.

Mr Baker said economic expansion could continue, "provided we see deficit reduction in the neighbourhood of \$50bn ... (and) provided we see monetary policy continue its present course."

Mr Baker called tax reform "one of the priority goals of the President," and said that he was continuing to talk to all congressional parties involved in the development of a tax reform package.

The administration is to present its legislation to Congress in May, but Mr Baker did not elaborate on any changes in the Treasury proposal made during conversations with congressional leaders in the last weeks.

Unctad told to 'confront reality'

THE U.S. has warned that the UN Conference on Trade and Development (Unctad), the world's main forum for North-South discussions, risks becoming a "museum for concepts and assumptions" lost in political rhetoric and inaction, AP reports from Geneva.

"Unctad must confront the reality of development," Mr Kamzilovich, deputy assistant secretary of state for international economic and social affairs, told a meeting of Unctad's governing body.

WORLD TRADE

EEC-Efta scheme outlined

By Quentin Peel in Brussels

A FOUR-POINT plan to ease and expand trade between the EEC and the seven-nation European Free Trade Area (Efta) was outlined yesterday by Mr Willy de Clercq, the European Commissioner responsible for external trade.

Further measures, such as simplification of border controls and easier rules of origin, were needed to reinforce the free trade in manufactured goods between the two West European blocs, he told a group of EEC and Efta parliamentarians.

Mr de Clercq presented the measures as his own opinions, but promised a formal plan by the European Commission by the end of April. He called for:

- Simplification of frontier measures, including the adoption of a single customs document such as that now approved for the Community;
- Extension of free trade to include more processed agricultural products and
- Harmonisation of technical standards, in line with the EEC plan for member states to recognise each other's standards rather than impose uniform Community rules.

Mr de Clercq told a joint meeting of members of the European Parliament and an Efta delegation that the EEC plans to complete its internal market should not result in greater barriers to its trade with the Efta seven.

He also suggested study of greater co-operation in the field of research.

U.S. rejects plea over steel

WASHINGTON - The U.S. has rejected a European Community plan to let European steelmakers sell 320,000 tons more pipe and tube products in the U.S. than allowed under a new export-restraint accord.

The decision is likely to anger the Europeans, who had pressed vigorously for the exception. Some analysts say it might make the EEC less eager to renew a 1982 export-restraint pact on carbon steel products that is scheduled to be renegotiated in 1986.

Andrew Whitley reports on the difficult political situation facing Brazil as its president-elect lies critically ill

Crisis looms over Neves illness

THE SUDDEN deterioration in President Tancredo Neves' medical condition — making it increasingly likely that, at best, he will be incapacitated for some time to come and, at worst, may never assume the presidency — puts Brazil in a very difficult political situation.

Constitutionally, authority rests with Vice-President Sr Jose Sarney, 54, who was sworn into office 12 days ago in the President's absence. Under the accepted line of succession he would normally be expected to step up.

In practice, however, it is highly unlikely that acting President Sr Sarney, a light-weight politician who was a faithful servant of the just-ended military regime of the past two decades, would be permitted to take over on a permanent basis.

Sr Sarney was chosen by Sr Neves as his running mate for the January indirect elections solely to balance his ticket as the candidate of the heterogeneous Democratic Alliance. The former government politicians who participated in the opposition alliance put Sr Sarney forward as their candidate for the state.

Next in line to succeed, if the constitution is followed faithfully, is Sr Ulysses Guizaraz, president of the Chamber of

Deputies, the Lower House of Congress, and president of the Brazilian Democratic Movement Party (UDMB) the largest party in the country and one with a vocal left-wing.

Here again, practical political problems arise. Sr Guimaraes, himself a left-winger and ardent opponent of the old military regime, is anathema to the country's business and financial community. It is also hard to imagine the military permitting the succession so soon after their own departure from the centre stage, a political act they had constantly fought.

Nor are fresh elections a viable possibility in the near future. President Neves won by means of the military-created and highly unpopular electoral college on the basis of a promise that, if elected, these would be the last such elections to be held in Brazil.

The then opposition candidate won public backing for his presidential bid only because of his pledge that he was participating in the artificially contrived electoral procedure "as to explode it from the inside." His own candidacy had, in turn, resulted from the failure of last year's massive campaign for direct presidential elections.

But to hold direct elections will require a change in the

constitution. That would take some considerable time — and time is one thing Brazil does not have.

Congressional committees are already at work examining changes in electoral law, permitting the reorganisation of the present, highly controlled party structure and preparing the way for a constituent assembly next year. This was expected to restore direct elections for President Neves's successor, possibly in 1988.

What makes the political outlook so bleak, if the 75-year-old President does not recover, is the universal recognition in Brazil that he is the only figure of any stature capable of binding up old wounds and reconciling the deeply antagonistic political forces in the country.

While assuring the public immediately that Brazil has changed as a result of this month's handing over of power by the military to a civilian government, and that the democratic process will be observed during this crisis — no Brazilian politician is yet prepared to commit openly the prospect of being without Sr Neves.

As Senator Fernando Henrique Cardoso, the government leader in Congress, said yesterday after one of a series of urgent meetings in Brasilia of

political leaders and Congressional office holders: "The greatest symbol today (of this change) is Tancredo Neves."

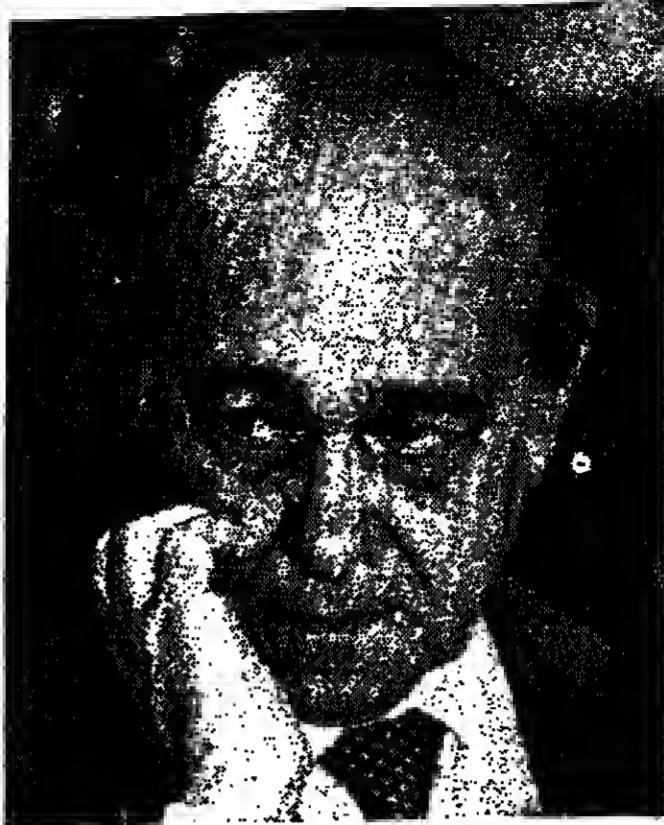
Within a political climate fraught with uncertainties, the economic consequences of a lengthy period of political turmoil in Brazil could be grave.

Technically in default with its foreign creditors — as a result of the suspension by the International Monetary Fund in January of its Brazilian loans, pending fresh negotiations with the incoming administration for an austerity programme — the Neves Government has only until the end of May to reach agreement with the IMF and the banks.

This date marks the deadline set by the bank creditors' advisory committee, which twice already has had to extend temporarily the debt renegotiation terms which expired at the end of 1984.

After growing solidly by 4.5 per cent last year on the back of an export boom, the Brazilian economy has recently shown signs of slowing down. The 1985 budget, totalled at \$28bn (£12.9 billion), in particular, looks increasingly difficult to achieve.

Most businessmen are anxious to see what changes the new Government will herald. The first economic announce-



Neves: symbol of democratic change

ments made over the past week from salary adjustments to agriculture credit — are becoming pressing. They will not wait until the political situation clears up.

Increase in IMF loan costs sought

By Nancy Dunn in Washington

THE U.S. intends to press for further increases in interest rates charged by the International Monetary Fund to bring the cost of IMF loans closer to market levels and to improve the fund's reserves, according to a report sent by the U.S. Treasury to Congress.

"There is no persuasive case for the extension of IMF credit at below market rates," the Treasury said.

The basic rate charged debtor countries was recently increased from 6.6 per cent to 7 per cent. The Fund has taken other steps to increase its charges.

But the U.S. wants further rises to protect the Fund's "own financial integrity, as well as to provide adequate remuneration to the creditor countries upon which its financial operations depend."

With the exception of the interest rate question, the Treasury report had few complaints about IMF policy. It rejected proposals to return to managed currency exchange rates, asserting that the current floating system has worked well in a "turbulent global economic environment" in facilitating adjustment, trade and investment.

Proposals for IMF private market borrowing were rebuffed as possibly having "an adverse impact on the co-operative international monetary character of the IMF and the ability of the U.S. to influence fund policy."

The IMF's role in containing the debt crisis has been "effective," said the Treasury, for it succeeded in promoting adjustment while minimising short-term losses in output and fostering a resumption of stronger economic growth.

The task before the international community is to ensure that progress in resolving current debt problems is sustained and similar problems are avoided in the future.

The Fund's current resources, augmented by the 1983 quota increase, are adequate for the adjustment job remaining, the Treasury said.

The U.S. will not support the creation of any new supplemental financing facilities, which the Treasury acknowledges would be difficult to fund considering "the severe resource constraints faced by most member governments."

Argentine bridging loan likely to be delayed

By Peter Montagnon in Vienna

ARGENTINA will need at least until the end of April before it can arrange bridging finance from other Latin American governments to help pay interest on its foreign debt, Mr Brodersen, chief debt negotiator, said here yesterday.

His statement dashes hopes in the banking community that finance from Mexico and other governments might have been made available this week so that interest arrears could be reduced before the end quarter profit reporting deadline for U.S. banks.

Mr Brodersen said Argentina understands that bridging finance will not be available until it has first reached agreement with the International Monetary Fund on new economic targets. Short-term finance might then help bridge the gap before drawing on the IMF can resume in July.

The U.S. yesterday called for tighter economic control over the use of scarce resources for development in debt-ridden Latin America. Reuters reports from Vienna. Mr David Mulford, Treasury Assistant Secretary, who is attending the annual conference of the Inter-American

Development Bank, ruled out discussion of future funding for the bank until it tightened up its lending policies. He opposed suggestions that the bank should step up concessional lending for social development projects in the region's poorest countries.

Theoretically the finance could amount to \$500m (£427m) which Argentina then expects to draw from the IMF "but we expect to get much less," Mr Brodersen said. Interest arrears on Argentina's debt stretch back to November 4 and amount to \$850m.

Mr Jesus Silva Herzog, Mexico's Finance Minister, yesterday told journalists attending the Inter-American Development Bank annual meeting here that his country would look

positively on a bridging loan request "that would help to strengthen Latin American cooperation."

But careful discussion on security for the loan would be needed and it would be better if a number of countries participated.

Mr David Mulford, U.S. Assistant Treasury Secretary, meanwhile said his country would be reluctant to consider bridging finance even after targets are agreed with the

IMF. This is because drawings on the IMF by Argentines would still be conditional on economic performance. "The bridge would not be firm," he said.

Separately Mr Silva Herzog said Mexico will start principal repayments of \$950m to commercial bank creditors about two months after the first part of its \$48.7bn rescheduling is signed on Friday.

The repayments agreed last September as part of the rescheduling deal will be made in instalments at the relevant interest rollover dates of the affected principal, he said.

The survey has already produced preliminary data pointing to sizeable leaks of toxic chemicals at some plants in this country, staff members of the House Energy and Commerce Health Subcommittee said on Monday.

In remarks prepared for a hearing yesterday, Mr Henry Waxman, chairman, said his committee had to launch an investigation of chemical plants in this country, staff members of the House Energy and Commerce Health Subcommittee said on Monday.

David Gardner in Mexico adds: President Raul Alfonsin yesterday confirmed that one of the options being considered to resolve Argentina's foreign exchange shortage was an approach to other Latin American countries. He said no concrete negotiations had started.

Bhopal gas leak prompts chemical industry survey

THE POISON gas disaster that killed more than 2,000 people in Bhopal, India, has prompted a U.S. House of Representatives subcommittee to undertake what its chairman calls the first broad federal safety survey of the U.S. chemical industry, AP reports from Washington.

The survey has already produced preliminary data pointing to sizeable leaks of toxic chemicals at some plants in this country, staff members of the House Energy and Commerce Health Subcommittee said on Monday.

At some plants, we have routine leaks at levels that other plants would consider a serious accident," the aide said.

The committee was to bear testimony from chemical industry executives including Mr Warren Anderson, chairman of Union Carbide, which last week announced the findings of its internal investigation of the Methyl Isocyanate leak from the plant of a subsidiary in Bhopal last December.

"It's a good commentary that no other government agency

has attempted to gather this information," Mr Waxman said. "All levels of government have abdicated their responsibility to regulate poison gases that leak into the air."

An aide to Mr Waxman, who spoke only on condition that he not be identified, said responses to the committee's survey vary in scope and quality, with some companies providing detailed information about leaks and others saying they did not have enough data to reply.

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The committee was to bear testimony from chemical industry executives including Mr Warren Anderson, chairman of Union Carbide, which last week announced the findings of its internal investigation of the Methyl Isocyanate leak from the plant of a subsidiary in Bhopal last December.

The U.S. will not support the creation of any new supplemental financing facilities, which the Treasury acknowledges would be difficult to fund considering "the severe resource constraints faced by most member governments."

Mr's accountants were aware that they were putting forward a claim to have the carried-forward losses of the defunct Shipping Division set against the profits of the Airbreakers Division. They clearly knew that the brought-forward losses of £245,457 had arisen wholly in the Shipping Division.

The material which they put before the inspector was sufficient to bring home to the mind of an ordinary competent inspector in his position precisely what they were claiming. The accounts made it clear that the Shipping Division had ceased to trade and had no profits in the year in question.

There were no grounds for the view that the accountants did not know what they were doing. The accounts made it clear that the Shipping Division had ceased to trade and had no profits in the year in question.

The situation must be viewed objectively. The question was whether the inspector's agreement, having regard to surrounding circumstances including all the material known to be in his possession, was such as to lead a reasonable man to conclude that he had decided to admit the claim.

The answer was in the affirmative. That conclusion was fortified by the consideration that the Revenue's argument before the Commissioners contained no hint that the inspector did not appreciate that the brought-forward losses had been incurred wholly in the Shipping Division.

The question was whether the availability of those losses for that purpose was the particular matter which the inspector raised in the section 510 agreement arrived at on January 8, 1970.

The accountant's computations plainly included the calculations showing the set-off of brought-forward losses against the profits of the Airbreakers Division. Those losses were in fact losses of the defunct Shipping Division.

Counsel for the Revenue argued, however, that the accountants' computations did not make plain that the proviso of the section 510 agreement was not clearly indicated and that the inspector might have thought or assumed that he arose in the Airbreakers Division.

In the circumstances, it was argued, the point now at issue was not in contemplation at the time.

There could be no doubt that OI-

European consortium to sign China rail deal

By Paul Betts in Paris

A EUROPEAN consortium, including French, West German, Swiss and Belgian heavy engineering companies, is due to sign a FF 2.6bn (£225m) contract today to supply China with 150 railway locomotives.

The contract is the single largest order for locomotives ever to be supplied to a so-called "sovereign" consortium.

The consortium includes Alsthom, Ateliers Atlantique and Jeumont-Schneider for France, AEG and Siemens for West Germany, Brown Boveri for Switzerland, and the ACEC group for Belgium.

The French companies are expected to be awarded 40 per cent of the total contract with Alsthom, Ateliers Atlantique and the MTE subsidiary of Jeumont-Schneider taking orders about FF 300m each. The German interest also totals 40 per cent with 10 per cent each for the Swiss and the Belgians.

The contract is expected to open the way for more collaboration between the European companies and China in railways. The contract took five years to negotiate and the European consortium finally clinched the deal against competition from a Japanese group.

The deal also comes after a series of large orders won by French companies in China. Alsthom, Ateliers Atlantique signed a contract at the end of last year to supply six gas turbines.

The Peugeot car group also recently signed a contract to collaborate with China in the production of Peugeot pick-up trucks.

LORD KEITH said that Olin carried on the business of supplying specialist equipment to the coal mining industry and other engineering activities.

In 1981 it started another trade. With a loan of \$8.58m at 5% per cent interest repayable over 20 years, it purchased a ship and chartered it out. The charter was terminated in 1987, the ship

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Financial Times Wednesday March 27 1985

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UK NEWS

Pit union ballot rejects levy to aid sacked men

BY JOHN LLOYD, INDUSTRIAL EDITOR

BRITAIN's miners have delivered a telling blow to the leadership of the National Union of Mineworkers (NUM) by voting decisively against financially supporting those miners sacked during the year-long strike.

The announcement of the vote came as:

- Pressure continued to build for an end to the miners' overtime ban which started before the strike.
- Miners' leaders seem increasingly ready to accept that defiance is no longer tenable, and are looking to resuming talks with the National Coal Board (NCB) over pay and pit closures.

- Mr Roy Lyak, working miners' leader, announced he will stand against the left-wing Mr Mick McGahey for the NUM vice presidency.

The result of last week's pithead ballot - the first in the NUM for two years - was decisive, with 109,150 miners voting by 54 per cent to 46 against a voluntary levy of 50p each per week, called for by the NUM's executive to help support the 620 miners sacked by the NCB during the dispute.

Non-oil exports climb to peak of £5.1bn

BY MAX WILKINSON, ECONOMICS CORRESPONDENT

BRITAIN's export bound forward to an all-time record in February, although imports were also running at a high level.

The latest figures from the Department of Trade and Industry yesterday showed that non-oil exports rose steeply in February to £5.1bn, representing a volume which was 8 per cent higher than January's level.

Although monthly trade figures are notoriously erratic, there is evidence of a steady improvement in exports over recent months.

In the three months to February, the volume of non-oil exports was 11 per cent higher than a year earlier, and 3½ per cent higher than in the previous three-month period.

By contrast, non-oil imports in the latest three months were 1½ per cent lower in volume terms than in the previous three months, although they were up by 6½ per cent compared with a year ago.

Imports of manufactured goods have risen, however, with their volume in the three months to February 4 per cent higher than the average for last year.

This was more than matched, however, by a rise in exports of manufactured goods which were 6 per cent higher in the latest three

months compared with last year's average.

The figures suggest that the ending of the miners' strike had little effect on the trading accounts in February. Oil imports were running at more than £800m, about the same level as in recent months, while oil exports, at £1.5bn, were about the same as in December.

As oil-burning power stations are gradually shut down in the coming months, the overall surplus on oil trade up to £2.4bn in the latest three months, slightly more than in the first quarter of 1984, before the miners' strike began.

For February the figures show an estimated current account surplus of £131m, which compares with an average surplus of £213m in the previous three months. For the year as a whole, the Treasury is forecasting a current account surplus of £3bn, some £500m more than was achieved in 1983.

This improvement reflects the continued build-up of North Sea oil production. The rise in production has pulled the surplus earned on oil exports, at £1.5bn, up to £2.4bn in the latest three months, slightly more than in the first quarter of 1984, before the miners' strike began.

BALANCE OF PAYMENTS (£ bn, seasonally adjusted)			
	Current balance	Visible balance (non-oil)	Invisible balance
1982	4.98	4.57	2.50
1983	2.54	6.85	8.01
1984	0.05	7.14	-1.28
1984 Q1	0.63	2.32	4.31
Q2	-0.59	1.54	-2.37
Q3	-0.62	1.80	-2.45
Q4	0.64	1.47	-2.85
Three months to:			
Feb 1984	1.19	2.48	-2.03
Nov 1984	-0.04	1.30	-3.17
Feb 1985	0.61	2.35	-3.04

Note: Forecast figures for invisibles are estimates subject to revision

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"FREF objectives are not defined beyond the generalities of maintaining the competitiveness of UK exporters, balance of payments and industrial and employment considerations. No agreed methodology has emerged for assessing cost-effectiveness."

"It is clearly unsatisfactory that expenditure of over £1.1bn - substantially more at 1984 prices - should have been incurred over the past 10 years without any clear quantified evidence emerging as to the extent it was required to secure overseas orders and as to the extent of any net overall national benefit to the UK economy," Sir Gordon says.

Sir Gordon's own staff estimate that five UK companies alone account for some 40 per cent or £5.5bn by value of existing FREF loans (at July 1983) and that countries classi-

fied as relatively rich accounted for some 16 per cent or £2.4bn of such loans at that date.

The ECGD itself did not keep statistics identifying countries, industrial sectors and individual companies benefiting from FREF, and the FREF section did not always monitor FREF-supported contracts.

Sir Gordon found that neither the Department of Trade and Industry (DTI) nor the ECGD had considered the practicability of setting operational objectives; neither had made studies aimed specifically at measuring the benefits of FREF, and

It does so through fixed-rate export finance (FREF), which provides interest support for loans at fixed rates of interest advanced by commercial banks to finance UK exports of capital goods.

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Sir

Campaign aims to draw investment to Britain

BY WALTER ELLIS

"BRITAIN Means Business," a co-ordinated campaign aimed at increasing overseas investment in the UK, was launched yesterday by Mr Norman Tebbit, the Trade and Industry Secretary.

The campaign is intended to raise the profile of Britain as an investment location in the face of increasing competition within Europe.

Just over £1m has been provided by the Government. The organisers, the Invest in Britain Bureau (IBB), hope to raise a further £1m from UK industry. Both sums will be in addition to funds available through the Scottish, Welsh and Northern Ireland Offices and the English regional development bodies.

Mr Tebbit - who was joined at yesterday's London launch by Mr George Younger and Mr Nicholas Edwards, the Scottish and Welsh Secretaries, and Mr Charles Patten, Under-Secretary at the Northern Ireland Office - said that Britain Means Business was unique.

It represented the first occasion on which the main British public sector inward investment bodies had joined forces with the private sector to promote a united UK image overseas. "It offers an exciting prospect and, as the Prime Minister has said, it is 'truly British effort'."

All four ministers stressed the



Mr Tebbit: no shortage of skills in the UK'

fact that competition for inward investment within Europe was getting tougher. It was important that a united UK front be presented, demonstrating not only the investment packages available but the experience of those foreign companies which had already selected Britain as an overseas base.

Mr Tebbit said some people were not fully aware of the UK's attractions. "Maybe some in the U.S. or Japan still believe - like some of our colleagues in parliament - that the UK economy is contracting. Or they might feel that there is a seri-

ous industrial relations problem here. But neither belief is true, and there is no shortage of skills they need."

Britain's corporate tax regime, Mr Tebbit said, was very attractive. No country, except perhaps the U.S., placed fewer restrictions on the movement of capital in and out of the country. Moreover, in Britain, "unlike in certain other countries - sometimes covertly," there was no discrimination against foreign business.

Mr Younger said that close co-operation on inward investment projects was nothing new for Scotland. But the new campaign - which will involve overseas missions by industry as well as ministers - gives us an additional opportunity to get our message over in the key market places, notably the U.S. and Japan.

Mr Edwards stressed the fact that, while his immediate concern was for Wales, the Government was involved primarily with the attraction of industry to Britain as a whole.

Mr Tebbit listed the contribution made by foreign investment: £1bn in capital investment in 1984; new management and production techniques; new technology and products; and in 1984, the creation of 28,000 jobs.

Luxembourg air pact sets fare precedent

BY MICHAEL DONNE, AEROSPACE CORRESPONDENT

THE UK Government's campaign to win greater liberalisation of air travel in Western Europe has moved an important step forward with an innovative air services agreement with Luxembourg.

Although the volume of air travel between the two countries is small, the agreement is regarded as a breakthrough in that it is the first in which the governments leave fares-fixing entirely to their airlines.

Mr Michael Spicer, UK minister responsible for civil aviation, said: "Never before have two governments agreed to leave it so completely to their airlines to use their own individual commercial judgements as to how they may best meet and stimulate the demands of the customer."

"It is our aim that this agreement with Luxembourg should set the standard for arrangements we would like to make with other countries in Europe."

Air agreements have until now provided that either government has the right to veto fares. Under the Luxembourg pact, both governments would have to disagree fares to render them ineffective.

The Luxembourg pact follows those agreed with the Netherlands and West Germany on more liberal air policies. Including the UK and Luxembourg, there are now four countries in the EEC committed to more liberal aviation policies.

"We look forward to persuading other countries inside and outside the EEC about the wisdom of our arguments," Mr Spicer said. "For a

Gooding's mission to rescue companies

MR ALF GOODING, whose Gooding Group has rescued the Servis washing machine companies from receivership, is not a typical British industrialist.

For one thing, he is inclined to passionately outburst on what he sees as the great potential of industry in the UK.

"I believe the men and women of this country will work their guts out if they are led properly, and our workers are as good or better than any," he said after the announcement this week that his company had bought the assets of Servis from the receiver for £3.75m.

Servis, the third largest washing machine maker in the UK after Hotpoint and Hoover, had gone into receivership at the start of this month after it had failed to find new equity to reduce its excessive debts.

Mr Gooding also served notice that imported components were no longer welcome at Servis. They make up 20 per cent of the company's most popular automatic washing machine. British manufacturers were going to be offered the chance to displace importers as soon as possible, he promised.

"By the time I've finished with it, there won't be many imported components left," he said.

Mr Gooding, aged 51, a little-known Welsh entrepreneur, had his main break in the late 1960s when he realised he had to diversify away from the declining housebuilding business.

He set up a company to make steel fabricated lintels for placing above house windows. Within a few years he had converted the market from concrete to steel lintels. In 1982, he sold the business, Catnic Components, to Rio Tinto Zinc for £1.5m, and decided to put his confi-

dence in the future of British industry to the test.

Late in 1983, he gathered a group of experienced managers around him and set up the Gooding Group with £5m of his own money. His fellow executive directors are Mr Derek Norton, the former boss of Hadfields, the Sheffield steelsmiths that tried to break the steel strike in 1980, Mr Peter Hickson, a former Tarmac financial executive, and Mr Philip Thwaites, formerly with Caisio, the consumer electronics group.

Sir Michael Edwards and Mr John Miller, formerly a director of United Builders Merchants, are also directors.

Their four acquisitions to date include companies in electronics, paper converting, packaging and engineering. Together, the companies have a turnover of about £35m.

Mr Gooding, who is also head of the council of the Confederation of British Industry in Wales, stated the group's objectives:

"Gooding is a private industrial group whose objective is to build a major manufacturing and marketing organisation. Our strategy is to acquire companies in poor shape but with good potential to turn them round and develop them for public flotation."

The group believes it can achieve its objective by putting new management into companies, investing heavily in the most modern equipment and giving workers incentives.

UK NEWS

United's bid approach rebuffed by Fleet

Prize worthy of pursuit

BY SUE CAMERON

FLEET HOLDINGS - publishers of the Sunday Express and Daily Express - yesterday issued a sharp and short rebuff to United Newspapers' plans for launching a takeover.

Fleet said that "in the absence of any details from United" the proposal for a merger "appears to have no merit."

This carefully worded statement gave no clue as to whether Fleet was an unwilling bride or whether it was simply playing hard to get in the hope of securing a better marriage settlement.

Both possibilities are being canvassed although there seems to be a general view that ultimately Fleet will be forced to concede. There also appears to be common agreement that Fleet will prove if not a glittering prize at least one well worth the while.

Fleet, which was demerged from Trafalgar House, the shipping property and construction group, in 1982, owns not only Express Newspapers but also the Morgan-Grampian specialist magazine group with interests in the U.S. as well as the UK, a small string of regional newspapers in Britain, a share in TV-am, the breakfast channel and a stake in Reuters that is estimated to be worth at least £80m.

What is more, some of these holdings seem set to start producing profits after years of losses.

The Daily Star, the popular daily newspaper launched in 1978 for example, saw its circulation rise by 16 per cent last year and it is now understood to be breaking even on a month-by-month basis.

TV-am - in which Fleet has roughly a one-third share - is now starting to produce profits for the first time, and the outlook for next year is said to be optimistic.

Results for the whole of the Fleet group in the six months to December 31, 1984 showed a marked improvement in the figures for the same period the previous year. Pre-tax profits shot from £4.7m in the second half of 1983 to £11.18m in the last six months of last year.

The improvement was spread right across Fleet's activities with the sole exception of its comparatively minor regional newspaper business.

Particularly noteworthy was the way pre-tax profits on Fleet's national newspaper titles - the Daily Star and the Sunday Express and Daily Express - rose from £2.19m to £4.4m.

Not only has everything been coming up roses for Fleet in the last few months but the group's management was known to be looking hard at the possibility of expanding through acquisition.

One aim - despite the good results last year - was to diversify from national newspapers with

Ford to raise output of diesel engines

BY KENNETH GOODING, MOTOR INDUSTRY CORRESPONDENT

FORD IS to increase output of its new 1.8 litre diesel engine produced at Dagenham in the UK by nearly 30 per cent from 160,000 to 205,000 a year, Mr Sam Toy, chairman of Ford of Britain, said yesterday.

Ford invested £180m in the Dagenham diesel, which was launched only last June. The equipment was designed so that capacity could be increased to the 205,000 level for a "modest" further outlay.

Mr Toy was taking part yesterday in the run-up to the launch on May 17 of the new Ford Granada, known on the continent as the Scorpio.

He said that the Scorpio/Granada would be launched at a time when the UK new car market was in decline from the peak 1.78m in 1983. Ford exports only 1.65m new cars to be registered in the UK this year compared with 1.74m in 1984.

He made it clear that Ford had not moved from its target of reaching a total car market share approaching 30 per cent even though its main rivals, General Motors, the Vauxhall-Opel group and BL's Austin Rover subsidiary, are also determined to make up ground this year.

However, Mr Toy promised that Ford would not offer extra financial incentives on the new Granada but would "let customers decide what its place in the market should be."

Ford of Britain hopes to sell the new Granada at the rate of 30,000 a year compared with 22,215 of the old models registered in 1984.

Update on IBM, March 1985.

No.3

IBM exports take off.

In five years, IBM has climbed from Britain's 14th largest exporter to 6th position*. Exports last year were £1,175 million - an increase of 58% in one year alone.

IBM UK exports Information Technology equipment to customers in Europe, the Middle East and Africa.

This export success helps maintain 4,700 manufacturing jobs in Greenock, Scotland and Havant, Hampshire, which together export 85% of their production - including the best selling IBM Personal Computer.

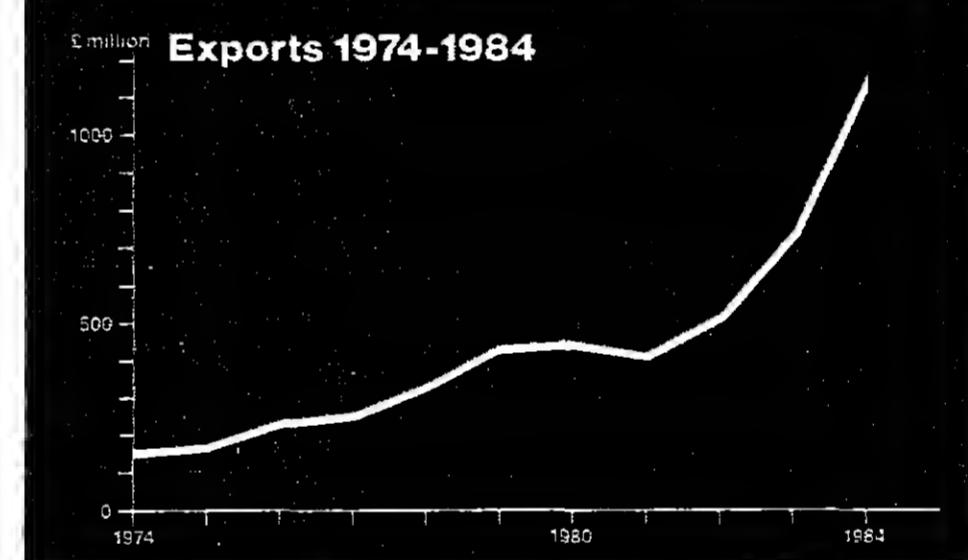
OVER 1,300 NEW JOBS

IBM's export success is a major factor in the company's continued employment expansion: 1,380 new jobs were created at IBM last year. IBM UK now employs over 17,500 people.

INVESTING MORE THAN TWO MILLION POUNDS A WEEK

IBM's exports also contribute to profits, much of which are then reinvested in Britain.

Capital expenditure in 1984 was £149 million, and included investment



SUPPORTING JOBS AMONGST SUPPLIERS

IBM uses UK suppliers wherever possible. By doing so, the company estimates it has either created, or at least sustains, 8,000 supplier jobs in Britain.

WHY EXPORTS MATTER TO BRITAIN

The growth in demand for Information Technology is turning Britain into a major importer of IT supplies.

The NEDC reported that the 1983 balance of trade deficit for the UK was at least £800 million, and possibly as high as £2,000 million. In contrast, IBM invests where it does business and has historically kept an approximate balance between its exports and imports.

Information Technology is an industry in which IBM has shown that UK manufacturing can compete successfully. If our British suppliers can seize the opportunity which IBM's growth in the UK provides, we'll do even better.

IBM

JUST THE JOB FOR BRITAIN.

FOR MORE INFORMATION, WRITE TO IBM UNITED KINGDOM LIMITED, EXTERNAL PROGRAMMES, SOUTH BANK, LONDON SE1 9PZ.

*Source: Times 1000 1970-80, 1984-85.

APPOINTMENTS

RESOURCES REVIEW

Changes at the Pru

Having completed his five-year term as chairman of PRUDENTIAL CORPORATION, Lord Carr of Hadley, who was Home Secretary in the Heath Government, will be relinquishing the office after the annual meeting on May 30, but will continue as a director. Lord Hunt of Tanworth, currently a deputy chairman, is to succeed Lord Carr. Lord Hunt, former Secretary of the Cabinet, joined the board of Prudential Corporation in 1980 and became deputy chairman in 1982. Mr Ronald Skinner, a director, will become a deputy chairman of Prudential Corporation. He was chief actuary of The Prudential Assurance Company until his retirement in 1979. He became a director of the Corporation in 1980.

From May 30, the board of The Prudential Assurance Company—the main operating subsidiary of Prudential Corporation—is to become wholly executive. Lord Carr is to retire as chairman. Lord Hunt and Mr Peter Moodie as directors, Mr Brian Corby, chief executive and a director of Prudential Corporation, will become chairman of The Prudential Assurance Company, and Mr Ronald Artus, group chief investment manager and director of Prudential Corporation, will become deputy chairman.

TULLETT AND TOKYO INTERNATIONAL, London, has appointed to its board Mr Seiichi Akiyama as the executive director, who will represent Tokyo Forex Company, Tokyo, during his stay in London. Mr Rick Magee, managing director of Tullett and Tokyo Forex Inc, New York, is appointed a director. Mr Koichi Yanagida, who prior to his return to Tokyo, was executive director, is now appointed director replacing Mr Y. Kanno.

Mr Roger Hayes has been appointed director of electronic communications for THORN EMI. He was manager, corporate communications worldwide with P.A. Management Consultants.

Following the formation of ELECTROLUX HOTEL SERVICES UK by the Electrolux Group of Sweden, Epicure Holdings and the Farnsworth Company, Mr Nicholas C. Popoff has been appointed as managing director. He joins from Grandmet International Services.

BISGOOD, BISHOP, jobbers, is to change the name of the company to County Bisgood. This reflects progress towards integration into the NatWest Group under the umbrella of County Holdings. Five directors are to be appointed to the board of Bisgood, Bishop. They are Mr

John Brown, Mr Martin Burton, Mr Geoffrey Green, Mr Richard Hine and Mr Bob Wade, all of whom hold senior posts in the dealing team.

Mr Edward T. Hartill has been appointed City Surveyor for the CORPORATION OF LONDON. He will take office from April 15, succeeding Mr Richard Luff who is now estate manager for British Telecom. Mr Hartill was estates manager at Guardian Royal Exchange.

Mr Colin S. Kettle and Mr Roger W. James have been elected members of the Midlands and Western unit of the Stock Exchange and associate members of SABIN, WHITE & CO, stock brokers, Birmingham.

Mr W. H. Wilkinson has retired as managing director of SUND'S DEFIBRATOR but remains on the board as non-executive director. Mr C. E. Wilkinson has been appointed general manager with Mr K. R. Glendinning as deputy.

Dr Douglas J. N. Currie has been appointed managing director of MARINA AND PORT SERVICES. He is vice-chairman of the Federation of Dredging Contractors, and general manager of Holland Dredging Co. (UK). He joins Marks on May 1.

Mr Bo Brostrom has joined LEHMAN BROTHERS INTERNATIONAL as a director. He will have responsibility for corporate clients in the Scandinavian/Finnish area. Mr Eneroth was previously a director at Ridder, London.

CLYDESDALE BANK has appointed Lord Ledingham and Mr Alexander Ledingham, senior partner of Aberdeen-based solicitors Edmonds & Ledingham, as main board directors from April 1.

Having reached the age of 80, Sir Julian Hodge has retired as chairman from the board of COMMERCIAL BANK OF WALES which he founded in 1963 and rose by another 60 per cent last year, with almost 3,000 wells completed. Sponsors of several new projects have been allowed to postpone PGRT and provincial royalty payments until they recoup their capital costs.

Export levies, previously determined by bureaucratic fiat, have been negotiable since the beginning of this year in an effort to improve the competitiveness of Canadian oil in the U.S. market. Canadian producers recently made a bid to export oil to Japan for the first time.

The new Conservative Government in Ottawa and the producing provinces of Alberta, Saskatchewan and British Columbia are to be appointed to the board of Bisgood, Bishop. They are Mr

AFTER THREE years of deep recession, a new mood of optimism is sweeping through Western Canada's oil industry. In sharp contrast to Opec's wrangling over prices and production, drilling and land sales in Western Canada are at record levels, production will rise substantially this year and several large new projects are under way.

The depressed world market has contributed to the flurry of activity by forcing federal and provincial governments in Canada to reassess policies towards the oil and gas industry.

When energy prices were shooting up in the late 1970s and early 1980s, the authorities had no hesitation in levying an array of punitive taxes and charges on producers, culminating in the 10 per cent Petroleum and Gas Revenue Tax (PGRT) that was part of the former Liberal Government's contentious 1981 National Energy Programme.

With the drop in oil and gas prices, the basic premise of the NEP collapsed, leaving Canadian energy companies burdened by high taxes and the economy of Alberta in ruins. Miss Pat Carney, Federal Energy Minister, sums up the new priorities: "We're prepared to give up federal revenue so long as it's clear that we'll pick it up in increased jobs and economic activity."

Tax and pricing concessions initiated over the past two years have spurred the present surge in new investment. The Provincial Government in Saskatchewan agreed in 1982, for instance, to waive its 30 per cent royalty for a year after it will start to produce. Drill bit activity in the province more than doubled in 1983 and rose by another 60 per cent last year, with almost 3,000 wells completed. Sponsors of several new projects have been allowed to postpone PGRT and provincial royalty payments until they recoup their capital costs.

Export levies, previously determined by bureaucratic fiat, have been negotiable since the beginning of this year in an effort to improve the competitiveness of Canadian oil in the U.S. market. Canadian producers recently made a bid to export oil to Japan for the first time.

The other major change expected to flow from the present negotiations is a de-regulation of domestic oil prices, thereby abolishing the distinction between "old" oil discovered before the end of 1973 and "new" oil. Old oil



Miss Pat Carney, Canada's Energy Minister

Columbia are currently negotiating a new fiscal and pricing regime which may stimulate further investment. According to Mr Harry Carlyle, president of Gulf Canada Resources in Calgary, "everybody feels that we have governments that are going to support the industry, and activity is back in anticipation."

Miss Carney says that the Federal Government is committed to abolishing the PGRT although there is disagreement between Ottawa (addicted with a massive budget deficit) and the Provinces about the pace at which it should be done.

The Federal Government wants to be sure that its concessions stimulate investment rather than flow straight to oil companies' shareholders in the form of higher dividends. The proportion of companies' cash flow reinvested in exploration and development has dropped from around 110 to 65 per cent.

According to Miss Carney, the companies in recent years "put their surplus funds" into the money market, they took it out of the country, they spent it in Indonesia or whatever. Now we're saying that (the reinvestment) ratio has to increase, and we want some guarantees."

The other major change expected to flow from the present negotiations is a de-regulation of domestic oil prices, thereby abolishing the distinction between "old" oil discovered before the end of 1973 and "new" oil. Old oil

presently fetches a fixed well-head price of C\$29.75 a barrel, well below ruling world prices. On the other hand, the price of new oil, determined by a complex formula, is slightly above world prices. It was fixed at C\$40.10 a barrel at the end of 1984.

This system has already started fraying at the edges as the Government makes exceptions to encourage new investment. For example, Imperial Oil (Exxon's Canadian subsidiary) will receive new oil prices for output from an expansion of its Norman Wells oilfield in the Northwest Territories and its Cold Lake oilands development in North-East Alberta. Both projects are due to come on-stream later this year, although the deposits were discovered long before 1973.

Mr Hans Maciel, technical director of the Canadian Petroleum Association, estimates that the total number of wells drilled in Canada (the bulk of them in the west) will rise by 15 to 20 per cent in 1985 from the 9,500 completions last year. Spending on oil and gas drilling and development as well as oil sands projects totalled C\$8.7bn in 1984.

According to Mr Carlyle, "if the agreement (between Ottawa and the provinces) comes out not too badly, we'll be looking for a 20 per cent increase in 1985."

Interest is currently centred on heavy oil and bitumen-producing oilands projects, thanks to strong demand for asphalt for road construction in Canada either as conventional crude or as bitumen. Where bitumen deposits are close to the surface, as they are in much of North East Alberta, they are mined as oilands.

At least six new heavy oil oilands projects in Northern Alberta are due to come on-stream in the next year or two.

Esso Resources (an Imperial Oil subsidiary) will commission the first two phases of its C\$635m Cold Lake oilands project this spring. The next two stages are scheduled to come on-stream towards the end of this year, and the final fifth and sixth phases may be operational by mid-1986. Total pro-

duction will be 57,000 barrels per day.

Shell is expanding a pilot plant at Peace River into a full-fledged commercial facility with an output of 10,000 b/d. Startup is scheduled for late 1985. According to Shell official, the company is already planning another extension.

The joint venture at Wolf Lake between Petro-Canada and BP Canada is also due to come on-stream soon with an initial capacity of 10,000 b/d.

Production may be pushed up to 40,000 b/d by the early 1990s.

The Syncrude plant, which converts oilands to synthetic light crude, is in the middle of a debottlenecking programme that will raise capacity from about 128,000 b/d to 140,000 b/d. The shareholders are considering a new cracker to lift capacity to 200,000 b/d.

The first phase of Amoco's Elk Point project will soon begin with construction of a pilot plant producing 4,000 b/d of bitumen. Capacity may reach 23,000 b/d over the next decade.

Dome Petroleum plans to begin building commercial plants later this year at its Lindbergh and Primrose oilands deposits. The combined production will be around 40,000 b/d.

No fewer than 51 experimental projects are under way in Alberta, and several sponsors have begun negotiations with the Provincial Government to expand these into commercial facilities.

Conventional light and medium crude production will

CANADIAN OIL OUTPUT AND EXPORTS

Figures in thousands of cubic metres per day

Estimated production	Heavy crude	Light crude	Total
1981 average: Capacity	521	204.0	235.1
Production	31.0	189.3	230.8
1982 average: Capacity	377	201.6	239.3
Production	37.1	193.2	230.3
1983 average: Capacity	42.2	201.5	244.7
Production	42.2	201.2	244.4
Estimated exports	Light	Heavy	Total
1983	11.1	31.5	42.8
1984	14.3	36.0	50.3

Reserves: Conventional crude only

January 1983 735.7

January 1984 724.4

Sources: National Energy Board, Ottawa.

Attention is thus turning to ways of upgrading the heavy oil and bitumen into lighter products. Mr Reg Humphreys, chairman of the Alberta Oil Sands Technology and Research Authority in Edmonton, argues that "oil companies in Canada must get into heavy oil if they're going to stay in the oil business. Asphalts providing the opportunity to get into the business, but putting in upgraders will keep us there."

Two plants, Syncrude and a facility owned by Suncor, are presently in operation, upgrading heavy oil into synthetic crudes suitable as feedstocks in conventional refineries.

Husky Oil last year announced plans to build a \$4,000 b/d integrated heavy oil and upgrading facility at Lloydminster on the Alberta/Saskatchewan border. The C\$3.2bn project, the largest industrial venture in Canada, is scheduled for completion in 1988, using technology supplied by two U.S. companies, Hydrocarbon Research Incorporated and Texaco Development Corporation.

Other producers are looking for improved upgrading technologies before they add upgraders to their heavy oil facilities. The Alberta Oil Sands Technology and Research Authority (Astra) and ten oil companies in the closing stages of selecting a process to be used in a 5,000 b/d demonstration plant to be built at a cost of up to C\$200m.

According to Mr Humphreys, the partners hope that the technology they choose will achieve higher yields than Husky Oil's Lloydminster plant, which itself is expected to be more efficient than the Syncrude and Suncor processes.

Gulf Canada is one company that is not yet convinced that the risk is worthwhile. It is concentrating its energies on exploration and development in the Beaufort Sea, off Canada's high Arctic coast, and the Hibernia Field, off Newfoundland.

Mr Carlyle argues: "Sooner or later you have to upgrade heavy oil, and that's an expensive proposition. For much less capital investment, we can get much larger volumes of oil we need." He predicts that income from Hibernia and the Beaufort Sea will one day help finance some of the oilands projects in Western Canada.

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TECHNOLOGY

GENENTECH AND WELLCOME VIE FOR THE HONOURS

Hamster cell key to cure

BY STEPHANIE YANCHINSKI

A NOVEL substance for treating heart attacks has had such good results that the American regulatory agency the Food and Drug Administration has put it on the fast track for clinical evaluation.

Recent trials showed tissue plasminogen activator (TPA), an anticoagulant agent made by the genetic engineering firm of Genentech, to be twice as effective as opening up closed arteries in patients with heart attacks as the approved treatment, streptokinase.

Dr Eugene Passamani, one of the clinicians at the National Heart, Lung, and Blood Institute in Washington said: "This represents a major advance" in the treatment of thromboses.

The trial involved 289 patients who arrived at clinical centres in the throes of a heart attack. Of these 143 received TPA, and 146 streptokinase, a clot-dissolving enzyme produced by particular types of bacteria.

Two thirds of the patients receiving TPA showed complete or partial reopening of the blocked arteries an hour and a half after injections, compared to only one third of the streptokinase patients. These outstanding results, which will be published in the New England Journal of Medicine on April 4, convinced the FDA to stop the phase 1 trials, and go directly into phase 2, where all heart patients will receive TPA.



Dr Michael Johnston, head of Wellcome's culture products

TPA and streptokinase are two of a family of enzymes called plasminogen activators which trigger a series of events leading to the breakup of clots. This is particularly important in the coronary arteries.

TPA is a natural substance secreted in minute amounts by the wall of the blood vessel whenever a clot forms nearby. It activates plasminogen, a blood substance that dissolves clots.

Scientists have been experimenting for some years with streptokinase extracted from

streptococcus bacteria. But it activates the clot-dissolving system throughout the body, and can cause haemorrhage.

TPA, on the other hand, acts only in the vicinity of the clot. Doctors believe it is possible to inject it anywhere in the body without the hazards of uncontrollable bleeding.

For doctors like Passamani, the real advantage of using TPA is that the fast acting drug rapidly dissolves the clot, limiting long-term damage to the heart muscle, and giving doctors time to try other treatments.

Genentech considered it to be the cream of the biotechnology firms. Its TPA is one of the few products.

In 1983 it raised \$5m from individuals and institutions investing in a limited R&D partnership to support development of the drug.

Genentech's tissue plasminogen activator is currently made in an improved system based on genetically engineered hamster cells. However, Genentech faces stiff competition from Wellcome Biotechnology, a subsidiary of the British pharmaceutical firm Burroughs Wellcome. Last week Wellcome began commercial production of gene spliced TPA at its plant in Beckenham. Dr Michael Johnston, head of cell culture products, says Wellcome plans to launch clinical trials in the United States, Britain, and other parts of Europe later this year.

ENERGY

Coal-fired challenge to oil space heaters in the home

BY MAURICE SAMUELSON

FAITH in the future of coal underlies the launching this month of a new company to manufacture what it calls "the world's first full automated coal burning space heating device."

The company, Holden Heat, is seeking \$223,000 from the over-the-counter share market, to start producing a range of equipment to challenge oil fired central heating in parts of the country not served by natural gas. So far, two-thirds of the money has been raised.

Mr Bill Holden, chairman, has the support of the National Coal Board, which has tested the equipment at its Stoke-on-Trent research centre, and the coal distribution trade, including to take up the challenge.

Mr Peter Walker, Energy Secretary, has given his blessing, as has Dr Anthony Challis, former chief scientist at the Energy Department, who, as deputy chairman of the new company, will be in charge of neutralising public fears that it will intensify acid rain problems.

On April 1, the company will move into its new factory, at Bishop's Stortford, near Hertford, designed to produce up to 1,500 units a year.

Initially, three ranges of boiler and burner are being developed, for different sizes of buildings of which the smallest

will initially be a five-bedroom house.

When installed as a straight replacement for an oil fired unit, the installation cost, Mr Holden claims, would be well under £1,000, and that would include the provision of a chimney. Homeholders could expect a pay back period of three to four years.

The company claims that although its system is unique it is relatively simple to manufacture, with no significant reliance placed on high technology or specialised components. General maintenance and refuelling is said to be comparable with an oil-fired boiler, the major difference being that the coal is only half the price of oil.

The fuel, bituminous singles, is delivered directly into a bunker then fed automatically into the boiler, where it is burned with the minimum of smoke, and waste gases are purified before emission.

The boiler itself is cleaned automatically by a mechanism controlled by an electronic circuit so that the ash removed in the boiler is automatically extracted, cooled and returned into a normal dustbin for easy collection and removal.

In a power failure the fire would stay dormant for up to three hours

and then reactivate automatically when electricity is restored.

The company has already tested six prototypes, which worked satisfactorily for two years. The present flotation is to finance one more year of prototyping before commercial production begins in Frimley, Surrey, in the first half of next year.

A market survey has shown that of 629,000 domestic and commercial establishments outside the gas distribution areas, 32,900 a year would replace their heating units, of which some 3 per cent could switch to coal after three years, giving a demand for 950 coal-fired machines.

Mr Malcolm Edwards, the NCB's commercial director, says he has assured Holden Heat that the type of coal used in its machines, produced at many of Britain's lowest-cost mines, would be mainly generally available.

"The NCB plans to maintain prices at levels that will retain a significant cost advantage in the foreseeable future," he added.

"Once these machines are produced in commercial quantities they will lead to a take-up of coal capacity that will be of great value both to the user and to the coal industry in general." More on 08533 634 or 08944 233.

Adhesives

Joint strength

THE PRODUCTION Engineering Research Association (PERA) has developed a simple and accurate method of predicting the strength of adhesive joints.

PERA says that for the first time, the adhesive bonding process can be calculated with confidence at the production stage and joint performance can be quantitatively compared with other joining processes such as welding or riveting.

In fact, adhesive lap joints in sheet metal have been shown to be stronger than either riveted or spot welded joints of the same dimensions, and in some cases stronger even than a solid component of the same material and thickness.

Seven essential phases of bonding are identified: surface conditioning, adhesive preparation, adhesive distribution, component assembly, surface wetting, solidification and joint inspection.

The PERA work has shown that test methods commonly used at the moment to evaluate adhesives are inadequate for engineering purposes. In particular, existing lap shear and peel tests were shown to be irrelevant and misleading.

The research project has been supported by the Department of Trade and Industry and leading adhesive and engineering companies.

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Peripherals

Upgrading printers

FOR MOST personal computer users, the dot matrix printer, the unique Epson FX-80 or similar, is the best compromise between price and flexibility.

But for those, however, who would like to see their dot matrix machine producing something closer to letter quality print, Arcos software of Poole in Dorset has developed a \$26 (plus VAT) program which gives 14 separate typefaces.

According to Alan McGinley of Arcos, the program works with any Epson, Star and Canon printers and any other printers capable of graphics.

It works by creating the text in graphics form, making four separate passes over the paper filling in more of the character each time to produce an image close to that generated by, say, a daisy wheel machine. Inevitably it is slow but the result is good.

MEDICINE

Health monitoring by blood flow

AN ULTRASONIC technique for measuring blood flow in astronauts is the basis of a mobile health-screening system planned for hospitals in Britain.

In May, French astronaut Patrick Baudry is due to enter orbit on a U.S. space shuttle, accompanied by ultrasonic equipment built by researchers at the Laboratory of Medical Biophysics in Tours.

During the mission, he will strap to himself ultrasonic imaging equipment that measures the rate at which blood travels through his veins. This will indicate physiological changes that take place in space as the body reacts to zero gravity.

Similar hardware, under development at King's College Medical School in London, could be loaded on a bus to give a service to hospitals in south-east England.

Both the shuttle and bus-based hardware aims to quantify the rate at which blood is pulsing around the arteries. With a small probe on a patient's body, a doctor can beam ultrasound at blood channels—the sound waves bounce off cells of the liquid and are sensed by a detector.

The Doppler shift of the returned waves indicates the rate of blood flow. Changes in this property can indicate whether a person is suffering from arteries that are clogged with fatty deposits—a condition that

can cause a stroke and—in severe cases—death.

In a healthy person, blood courses through the arteries of the legs at an average of about 10 cm a second. When the arteries are clogged, the rate might be halved.

According to Professor Colin Roberts of King's College's medical engineering department, many hospitals lack the sophisticated facilities required for ultrasonic diagnostics. In his hardware, the ultrasonic monitor is linked to a computer that compares the measurements with a data base of ultrasound scans obtained from other patients. This indicates the seriousness of the condition and whether it may need surgery to correct.

In one plan under discussion, the bus with its ultrasonic equipment could visit offices and factories to give health checks to executives. Prof Roberts is attempting to obtain about £250,000 to continue development work and to put the health-care system in a form such that it can be loaded onto a vehicle.

In the work in space, the ultrasound technique may shed light on the way in which blood flow is disrupted by zero gravity. More blood resides in the head and upper torso than in a person on the ground, a condition that can lead to swelling of the brain and other unpleasant consequences.

PETER MARSH

Computer aided design

Faster response

FASTER ON-SCREEN response and improved productivity in computer-aided design (CAD) remain crucial in reducing design costs and getting products to market as quickly as possible—particularly in the electronics industry.

Working speed for a designer is a function of computer power and software design. During a project, he will demand hundreds of changes using keyboard, tablet or light pen, and the time for each to be executed and appear as new graphics on the screen is critical. That is why the CAD vendors are racing to develop 32-bit versions of their software, and why 16-bit machines with 32-bit processors—data transfers within the system are much faster.

The latest workstation,

GDS2/32, from Calma of Camberley uses a 32-bit Data General computer and has been designed to meet the challenge in electronics circuit design presented by "stand alone" offerings from companies like Daisy and Mentor.

Calma offers systems in which terminals work to a main computer over its Calmanet local area network and the latest announcement brings the "per seat" price down to \$85,000.

The GDS2/32 is optimised to handle the design, display and updating tasks of integrated circuit mask design and layout, using the host central processor for background tasks such as design rule checking and tape preparation for mask fabrication.

Vesper launches commercial system

Night vision

VESPER HOVERMARINE, looking for a night vision system that might be used by the 100 or so craft it has, says it found that what was available was either too expensive, too heavy or too complex for use by commercial ferry operators.

So it has developed its own system in conjunction with McLeans Marine, which had already designed a camera using the Soviet second generation Mollard image intensifier tube.

The resulting Vistar 301 equipment gives a forward field of view of 23 degrees horizontally and 12 degrees vertically, normally illuminated (when near to the shore) by ambient lighting from street and building

lamps. For offshore working, when there is no moonlight or starlight (both of which produce unacceptable pictures), a separate projector projects a beam of infrared light ahead of the craft.

The system's pointing angle can be shifted 10 or 20 degrees to port or starboard, and the IR projector moves in sympathy.

Approved by the Hong Kong Marine Department, the system is operating on a number of ferry routes in Hong Kong, on Vesper EM 218 craft.

In its simpler form the system costs about \$25,000 and with the IR projector, about \$76,000. More on 0703 443122.

Communications

Telex management

DATA AND Control Equipment of Aylesbury has introduced Teletex 2, a telex management system in a single, compact box.

It is designed for use with professional personal computers in any kind of office and offers such features as automatic redialling.

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BP BRIEFING No. 2: ANNUAL REPORT

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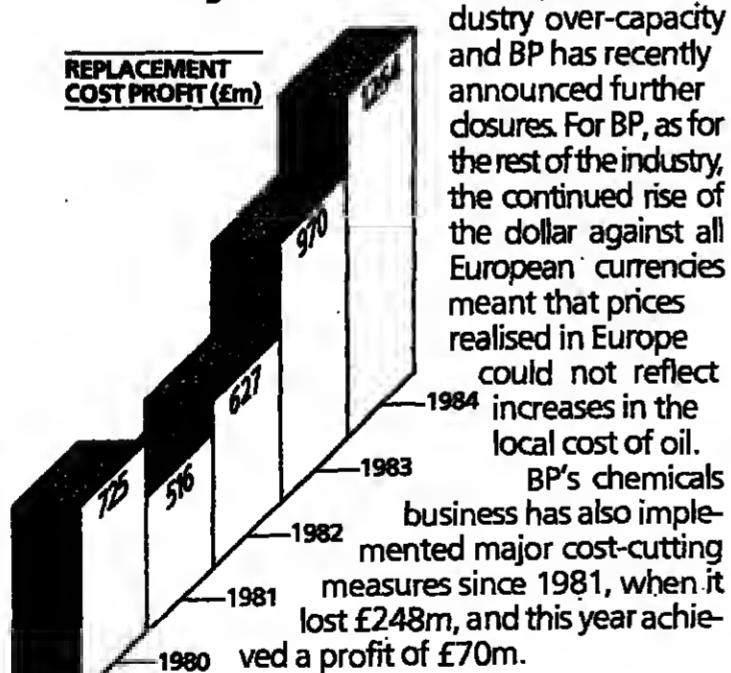


Profit after taxation

BP's financial results for 1984 showed a substantial improvement on 1983. Replacement cost profit was up by 30% to £1264 million. Historical cost profit increased by 62% to £1402 million. The difference reflects a gain in the value of stocks held which, in a year when the price of oil was under pressure, was mostly due to the strength of the US dollar.

Earnings from upstream exploration and production strengthened. In part, this was due to the first full year's production from BP's wholly-owned Magnus field in the North Sea. Sales from upstream activity are made in dollars. Profits from these sales, expressed in sterling, benefit considerably from the strength of the dollar.

BP's downstream refining and marketing operations were profitable and show a considerable improvement in BP's competitive strength. Returns were still depressed by industry over-capacity and BP has recently announced further closures. For BP, as for the rest of the industry, the continued rise of the dollar against all European currencies meant that prices realised in Europe could not reflect



Dividends per ordinary share

Because of the continuing improvement in competitive strength, the Board has recommended a final dividend of 20p per Ordinary Share.

Together with the interim dividend of 10p per share, this makes a total for the year of 30p – a 25% increase over the 1983 total of 24p per share.

Operating Profit by Activity

BP's operating profits come largely from its direct interests in oil exploration and production. BP has further large interests in exploration and production through its 55% shareholding in Sohio (shown here at 100%), which has more oil reserves in the USA than any other company. For BP, excluding Sohio, 86% of its operating profit comes from exploration and production, with refining and marketing accounting for 7% and the remainder from other BP businesses.

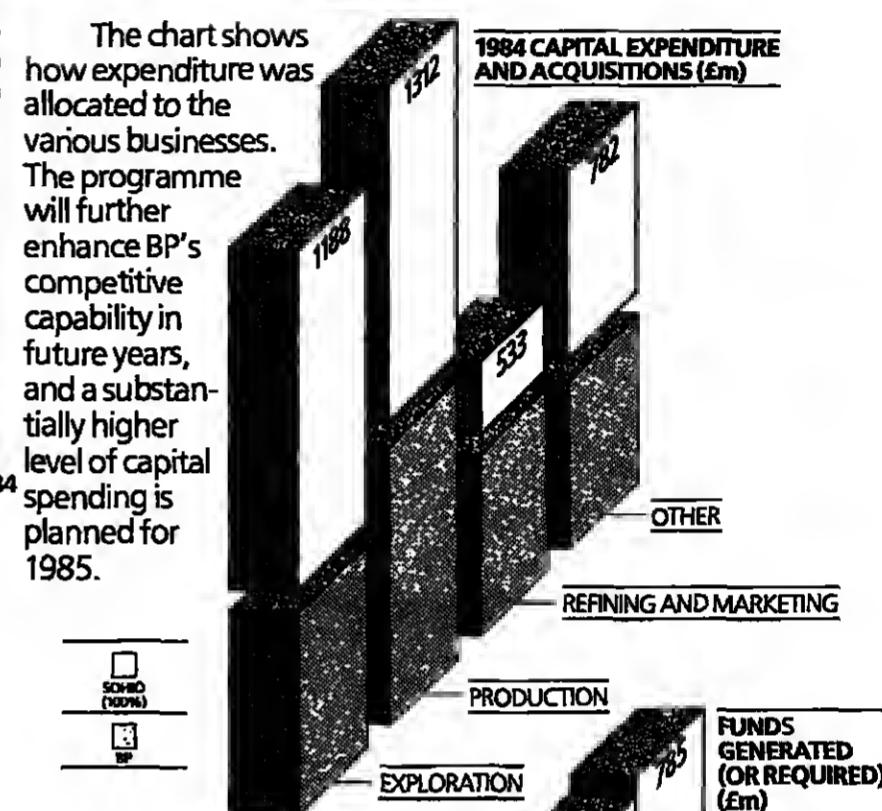
Operating Profit by Region (£m)

25% of the operating profit in 1984 came from the UK, 69% from North and South America (which includes 100% of Sohio's earnings) and 6% from other regions.

Capital Expenditure

Throughout the year, BP continued to improve the strategic composition of its business by an active programme of capital expenditure, acquisitions, disposals and closures.

The chart shows how expenditure was allocated to the various businesses. The programme will further enhance BP's competitive capability in future years, and a substantially higher level of capital spending is planned for 1985.



Funds generated

Capital expenditure of £3815m by BP was more than covered by funds generated internally. The excess, and some net borrowing, contributed to a rise in BP's liquid resources from £1200 million to £2300 million.

Proved reserves

At the end of 1984 the BP Group had 4631 million barrels of proved reserves. This represented a small overall increase after a year when 465 million barrels were produced. BP Exploration's share of these reserves totalled 1728 million barrels, located principally in the UK and North America. Its proved natural gas reserves totalled 3838 billion cubic feet, mostly in Australasia, North America and the UK. Substantial quantities of oil and gas, which have been discovered, cannot yet be classified as proved.

Current Exploration

BP Exploration's 1984 oil and gas exploration programme continued at a high level, with emphasis on the UK, Alaska, Egypt, China and Indonesia. Worldwide, BP drilled 195 gross (71 net) exploration and appraisal wells in 22 different countries, acting as operator in 11 of them. New leases were taken out in 15 countries.

If you would like to receive a copy of BP's full Annual Report for 1984, please send the coupon to the address indicated.

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WORLD ENERGY

Paul Betts on the development plans of the oil industry's 'eighth sister'
Ortoli maps out Total's strategy

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FRANCE'S TWO recently retired European Commissioners — M Edgard Pisani and M François Xavier Ortoli — have been charged each with challenging, if different tasks. M Pisani is currently struggling to find an acceptable solution to France's complex colonial programme in New Caledonia, where the former EEC Commissioner is the French Government's trouble-shooter. Mr Ortoli has been placed in charge of Compagnie Française des Petroles (CFP), the Total group sometimes referred to as the "eighth sister" of the international oil industry, at a time when the French oil company is scrambling to find new reserves.

Mr Ortoli took over as Total's chairman five months ago in a stormy, if discreet, behind-the-scenes succession battle. The company had fought in favour of the appointment of M Louis Deny, Total's deputy chairman, to succeed Mr René Granier Lillies when the latter reached mandatory retirement age last October. But Total's 25 per cent owned by the State, lost out to the Socialist Government which imposed on the reluctant company M Ortoli. The appointment of a political figure broke with Total's management tradition and provoked inevitable

criticism of Government intervention in the affairs of business.

M Ortoli has been lying low for the past few months. But in mid-March, the former Gaullist Minister finally emerged in the open before a group of French financial analysts. Appearing with all the top Total executives around him and M Deny next to him, Mr Ortoli spelt out the broad lines of his strategy.

In a nutshell, M Ortoli wants to intensify the recent emphasis and effort Total has placed on oil and gas exploration and production. He plans to increase significantly the exploration and production budget of a company which admits it has spent relatively little on exploration and production in the past.

Of all the major international oil companies, Total has perhaps been the most vulnerable to the dramatic changes that have hit the oil industry during the past ten years. The group had grown rich on its abundant supplies of Middle East crude, and developed a major downstream refining and distribution network.

But the oil shocks of the seventies and the subsequent slump in the refining business were traumatic for Total. As

M Ortoli pointed out, Total saw its annual oil supplies drop from about 80m tonnes to around 40m tonnes over a ten year period. The company's financial performance also suffered, with Total reporting a loss of FF 1.07bn (\$100m) in 1982 for the first time in its history.

Total has since undertaken a major restructuring programme, which has started to bear fruit. The group returned to profit in 1983, with earnings of FF 420m and M Ortoli expects Total to show group earnings of between FF 1.4bn and FF 1.6bn in 1984. Moreover, Total's annual oil supplies have been recovering, increasing from 45m tonnes in 1983 to 45.1m last year. Although Compagnie Française de Raffinerie (CFR), the group's large French refining subsidiary continues to lose heavily, M Ortoli says Total is "financially solid."

M Ortoli wants to use the group's sound financial base to acquire and develop reserves in politically and economically safe regions. M Ortoli's first three-year budget plan, embracing 1985 to 1987, envisages gross investments of FF 39.7bn and net investments of FF 33.4bn for the period.

The lion's share of these new investments will involve exploration and production activities. Exploration, with FF 8bn, will account for 20.8 per cent of the total, while production and development, with FF 20.8bn, will account for 52.4 per cent. In 1985, the exploration investment budget will rise to FF 1.25bn, from FF 1.04bn in 1983, while 1985 production investments will rise to FF 6.85bn from FF 4.8bn the year before.

M Ortoli is especially keen to develop Total's presence in the U.S. "Less than 3 per cent of the group's cash flow comes at present from the U.S." says M Ortoli, adding that this is grossly inadequate and practically unique among major international oil companies. By contrast, Elf-Aquitaine, the other French oil group, has invested heavily in the U.S. with its not altogether happy 1981 acquisition for \$2.5bn of the U.S. operations of Texagulf. Total is also envisaging buying new reserves in the U.S. and does not exclude the acquisition of interests in American oil producing companies.

Out of total exploration ex-



M. Francois-Xavier Ortoli: entrusted with a challenging task

penditure of \$257m this year, the French company plans to spend \$35m in the U.S. Last year it spent \$38m in the U.S. out of a total of \$190m.

M Ortoli's other major aims are to develop Total's trading activities and continue the rationalisation of the group's refining and petrol retailing operations. M Ortoli warns of the probable need to close more refining units in Europe in coming years. Total is also anxious to find a solution to its loss-making downstream operations in Italy, where it has so far unsuccessfully sought to sell its refineries and petrol station network. As for the group's diversification policy, M Ortoli indicates that Total will continue to develop "patiently" long-term position in the coal and uranium markets.

But M Ortoli is making no secret that his main ambition is to see Total concentrate on the bread and butter business of exploring for and producing oil. "We now intend to put the emphasis on the development of upstream businesses," he told the financial analysts this month. But it will inevitably take a few years to see whether the former politician will be able to transform Total into a more aggressive upstream oil group. Although the company has in recent months made a major effort to change its retiring public image, it is still striving to shake off its somewhat dowdy French reputation of being "la vieille dame d'Auteuil."

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THE MANAGEMENT PAGE

Stock Exchange liberalisation

Lloyds: avoiding a 'macho man' image

David Lascelles reports on the UK bank's current strategy

THERE HAS been a conspicuous absence from the rush by UK banks to forge alliances with stockbrokers and jobbers in the City Revolution: Lloyds Bank, the smallest of the Big Four clearing banks.

Defying the fashion, Lloyds has decided to pass by the opportunity presented by the liberalisation of the Stock Exchange to buy a securities firm. This does not mean it has no intention of participating in the changes that are sweeping in the City. But Lloyds will do so by "rolling its own" hiring qualified people and building up a securities team in-house.

Whether this strategy will turn out to be wise or shortsighted, only time will tell. Many people in the City admit to acute uncertainty about whether the revolution will end in triumph or a bloodbath. But since all Lloyd's biggest competitors, including Barclays, NatWest and Midland are putting ready-made securities firms with an established market share, Lloyds could be behind the starting line at "Big Bang" when the markets are opened up next year.

This owner does not worry the people who run Lloyds from its headquarters in Lombard Street. "We do not want to be among the 'haves' in the securities market," says Robert Owen, 45, the former chairman and Morgan Grenfell banker who is in charge of Lloyds' securities activities.

Even so, Lloyds is slightly defensive about its position. There is a view in the City that it failed to get the stockbroker it wanted, and is now forced to make a virtue of necessity. But Brian Pitman, the chief executive of the group, vigorously denies this.

"We talked to some stockbrokers to see what was going on," he says, "but we never got into serious negotiations."

Although Lloyds' view of the City Revolution is a minority one, it touches many of the concerns that its rivals weighed up before deciding to take the plunge. They have to do with the cost and risk of entering an

unfamiliar market at a time of great upheaval, and the strong likelihood that participants in the revolution will make little money, if not large losses.

Despite his reservations, Owen feels that Lloyds must be able to deal in sterling securities because of its broader role as an issuing house and a dealer in the Eurobond markets. "We're not going in to gilts just because they're there." But since gilts dealing is not likely to be enormously profitable, it will probably reduce Lloyds' overall returns.

The gilts operations will be a subsidiary of a new company that Lloyds is forming to pull together its merchant banking activities, many of which are in its overseas banking arm, Lloyds Bank International, now being fully merged into the Lloyds Bank group for greater efficiency.

The new merchant bank will include capital markets activity, syndicated lending, swaps, Eurobonds, project finance, export credits, corporate finance, investment management (it will control about £3.25bn), and development capital. It depends so far from the Bank of England, which Lloyds hopes will be forthcoming in the summer.

Cautious

Owen says: "We are taking a commercially cautious and low-profile approach. We have a clear direction map in our minds about the likely returns that we would get in the short and medium term." This concern about poor returns is shared by most other bankers who have made acquisitions, particularly as regards the gilts markets where more than 30 firms could be competing for business currently handled by half-a-dozen.

But those who have gone ahead would argue that low returns in the early stages are the price they must pay for a unique opportunity to get into a new business.

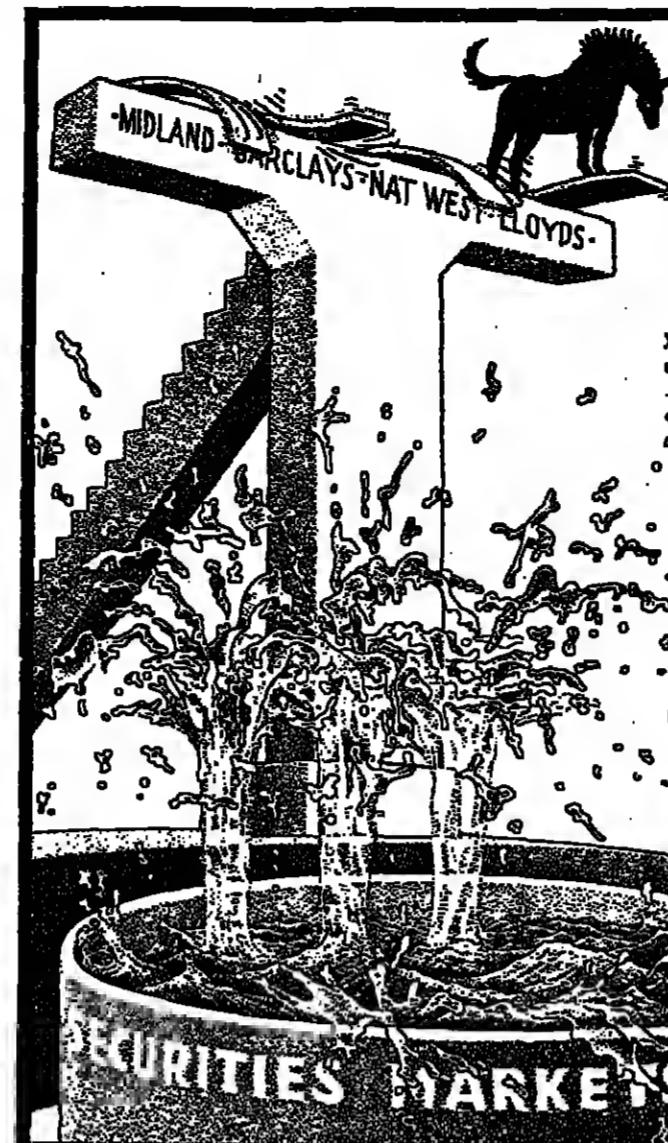
Again, Owen is unmoved. "We shall start from a lower base than the others," he admits. "But we do not feel excluded from this business for ever."

However, Lloyds will apply to the Bank of England to become a primary dealer in the gilts market, and is planning to set up a dealing operation with about £25m in capital, a figure

which is twice that of the other clearers. His views are strongly influenced by a spell running Lloyds Bank in California, where banks first went into direct broking.

Lloyds is just about to launch a new asset management account, a kind of banking-cum-investment account with financial counselling services attached. The arguments for this are not that bright given that Allied Hamro tried something similar last year without signal success. But Crawley says: "I think we can back it up with proper banking services which they could not. But I agree it's not a massive market."

Crawley is full of ideas for selling services through Lloyds cash machine lobbies and even branches of its Black Horse Agencies, the estate agency business which Lloyds has developed into the largest in the UK since launching it three years ago. He also foresees Lloyds going into the discount



International is brought into the fold

BUSINESS PROBLEMS

BY OUR LEGAL STAFF

Winding up a private company

A private limited company wants to wind up its affairs at a time when it has only one shareholder (the other having died, leaving his shares to the surviving shareholder), no liabilities and only one asset is cash at the bank.

Would it be in order for a general meeting to resolve that the cash be paid to the remaining shareholder, and instead of the normal formalities attendant on a liquidation, a return be made to the Registrar of Companies under Section 353 of the Companies Act 1948 that the Company has no assets or liabilities and is no longer carrying on business?

A simpler way would be to file no annual returns (after the cash has been distributed) and to wait for the company to be struck off.

Responsibility for repair of gates

I am a non-farming member of a panel of trustees for a charity which derives its income from the letting of fields to local farmers.

The trust deeds seem quite clear regarding who is responsible for the repair and maintenance of fences (the tenant), and field hedges (the land-beneficiaries), but a question of replacing gates which are beyond repair has caused some difference of opinion.

Can you please give any ruling, or generally accepted principle, as to whom should pay for replacement gates.

In principle we think that the upkeep of gates would fall on the person liable for the upkeep of the fences, in this case the tenant.

No legal responsibility can be accepted by the Financial Times for the answers given in these columns.

All inquiries will be answered by post as soon as possible.

THE long job of creating one bank out of Lloyds Bank and Lloyds Bank International is going ahead on schedule and should be completed by the end of the year. The Act of Parliament which will formalise the merger and do away with the need to rewrite hundreds of thousands of contracts and agreements should receive the Royal Assent by about the middle of the year. In Paraguay, they tell you proudly, the old Bank of London and South America, the core of LBSI, has already been reborn a Lloyds Bank.

Pre-tax profits from all international operations last year totalled £18m, down from the 1983 figure of £21m. All was clearly not well with LBSI profits, as was revealed in a leaked memorandum, much commented upon in the City, to the effect that earnings had been unacceptably low—no more than £4.5m post-tax in the first half of last year. LBSI did well in the US and Continental Europe, but, after debt provisions, profits were down in the Far and Middle East and in Latin America.

The bank is keen to combat what it says are exaggerated reports of its exposure in Latin America. While it is unwilling to give exact figures, it says that the estimate of 225 per cent of shareholders' funds quoted last year by London stockbrokers de Zoete and Bevan was excessive.

Eric Whittle, the chief executive of LBSI, tells it there are four reasons for the smaller bank to be merged with the giant British clearer. The first is that one consolidated balance sheet with share capital and reserves of £2.052m would give Lloyds greater flexibility than two balance sheets totalling the same amount.

With bank regulators in many countries becoming more demanding, the operations of LBSI would clearly benefit by being backed by the full weight of the Lloyds Group in the event as well as in practice. Despite the fact that LBSI is a wholly owned subsidiary of the Group it has stood on its own balance sheet to stand some regulatory authorities.

One merged bank would

be given greater flexibility as

well as Lloyds' Latin American operations and the rest.

David Pirrie, LBSI's senior director for Latin America and the architect of its present strategies in Brazil, denies that the merger need, of necessity, lead to any reduction of the importance of Latin America in the Group's operations.

The third reason is that

economies will be able to be made in central services, including the merger of three existing boards of directors.

Lastly there will be some tax advantages though the bank won't quantify these.

Lloyds denies that the absorption of LBSI will lead to any particular contraction in the network of more than

Hugh O'Shaughnessy

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			Price Change	div.(p.) %
144	123	Ass. Brit. Ind. Grd.	1.00	4.0
152	132	Ass. Ind. CILS	1.00	7.3
77	51	Airspung Group	5.6	11.4
42	26	Armitage and Rhodes	2.8	8.2
145	108	Bardon Hill	1.5	12.0
122	92	Bardon Hill	+1.1	3.5
201	170	CCCI Ordinary	1.20	7.1
162	110	CCCI 11p Conv. Pref.	15.7	13.8
915	100	Corporation Ord.	0.7	0.8
124	102	Corporation 15p. Pl.	10.7	12.3
103	43	Cinclid Group	—	—
73	51	Deborah Services	0.5	12.3
312	212	Frank Hornell	3.2	12.5
202	22	Freightliner Parker	0.8	10.7
28	23	George Blair	—	—
50	25	Ind. Precision Castings	2.7	10.8
218	152	Isis Group	1.5	12.0
124	102	Jones Bros.	4.9	13.8
265	213	James Burrough	13.7	5.4
93	63	James Burrough Son Pl.	12.8	15.2
57	57	John Howard	5.0	5.7
178	127	Linguaphone Ord.	+1.8	15.0
100	98	Linguaphone 10.5p Conv.	15.0	15.0
617	617	Minibuses Holding NV	2.8	4.4
129	121	Robert Jenkins	5.7	11.1
22	22	Robert Jenkins	5.7	10.8
92	81	Torday and Carlisle	—	6.4
444	355	Trevian Holdings	4.3	1.2
27	17	Uniflot Holdings	2.7	4.5
28	22	United Aircraft	2.5	14.4
247	224	W. S. Yentas	17.4	8.0
S = Suspended.				

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F.T.I.

THE ARTS

Wonderful Town

Michael Covency

After Merrily We Roll Along and *Damn Yankees*, the enterprising Guildhall School with their musical collector's tree Leonard Bernstein's *Wonderful Town* (1962) with lyrics by Betty Comden and Adolph Green, that team had begun their "New York" collaboration with *On the Town* (1944). Bernstein was to go on via the brilliant *Candide* to the best urban show of the lot, *West Side Story*, in 1957.

Wonderful Town, based on the 1920s Greenwich Village stories of Ruth McKinney, is a picaresque tale of two provincial sisters, with sis Eileen Sherwood ("you, oh why, do we have Ohio?"), the first a bit-dame fiction writer, the second a blonda honeypot with showbiz aspirations.

They arrive on Christopher Street, rent accommodation from a struggling painter, hit it off with a magazine editor, bump into a posse of Brazilian sailors who respond to but one word in English—*conga*. The result is "Conga," charm the police force (all of whom answer to the nome "Pat") and pair off with their respective amours and the promise of a rosy future.

All of which we wish, of course, to these final year Guildhall students, Jaye Griffiths and Maggie O'Neill show genuine promise as the sisters,

Triple bill/Covent Garden

Clement Crisp

A first ray of hope and technical light came into the Royal Ballet's disastrous revival of *Ballet Imperial* on Monday with Fiona Chadwick's assumption of the leading role. Here was a performance which opened out the dance to its proper vistas of grandeure, clarity, classic exactitude. It was Miss Chadwick's second appearance in this part, and there remains much to be polished in her account, but the feeling of proud skill was right, as was her dignity and entire assurance when faced with Balanchine's tremendous cadenzas.

Very beautiful, and true in emotion, her leave-taking from her Prince (the noble Derek Deane, the best incumbent of the role in the present revival) as the second movement closes, which caught the music's dying fall and held it in a long emotional phrase as she moved from his arms and eddied back into the wings.

In sum, a reading of rare promise, and one which—if the ballet is re-studied and properly revised, and rid of its crass design—should rank with the interpretations of Moira Shearer, Nerina and Sibley, who have been the ballet's great heroines in London.

The rest of the performance

Nicholas Daniel/Purcell Room

David Murray

As an instrument to play, the oboe attracts musically performers in the sense in which some artists are more "painterly" than others; its show-off powers are narrow and special, but it responds wonderfully to expressive precision in line and phrasing. Even among this musically tribe, Daniel stands out—certainly, I haven't heard any young oboist (he is only 23ish) with his consummate control of the instrument, nor the scrupulously exact intonation that it serves. He is already a mature musician, and it was a little sad to realise during his Monday recital that, sooner or later, it will have to be orchestral music that tests his full range; there just isn't enough nourishment in the solo repertoire.

If only Schumann or Debussy, Bartók or Stravinsky, had

addressed a full-scale sonata to the oboe! But they didn't (though if Debussy had lived a little longer, his three late chamber sonatas would have acquired a sibling for oboe, horn and harpsichord)—and Daniel played Britten's rich *Metamorphoses* in this same hall last year. So we got Dutilleux's expert but early Sonata, crisply delivered, and extractive occasional pieces by another half-dozen French composers. Among those, a Saint-Saëns "Nightingale" was notable for the dusky bell-lights of Daniel's tone, and a Fauré miniature for its sober grace; Ravel's Habanera-Vocalise can be seductive on any instrument, and was so on this one.

An unfamiliar Sarabande and Allegro by Grovlez gave Daniel room to exploit both the oboe's bottom register and its alegerne line.

Music/Monday. Opera and Ballet/Tuesday. Theatre/Wednesday. Exhibitions/Thursday. A selective guide to all the Arts appears each Friday.

Arts Guide

Theatre

LONDON

Noises Off (Savoy): The funniest play for years in London, now with an improved third act. Michael Blakemore's brilliant direction of backstage shenanigans on tour with a third-rate farce is a key factor. (208 222).

Stardust Express (Apollo Victoria): Andrew Lloyd Webber's rollercoastering folly has 10 minutes of Spielberg movie magic, an exciting first half and a dwindling reliance on indiscriminate rushing around. Disneyland, Star Wars and Cars are all influences. Pastiche songs nod towards rock, country and hot gospel. (208 224).

On Your Toes (Palace): Isben and Hart's 1936 musical is a genuine tonic. American jazz dance collides with the Ballet Russes. Genuis includes There's a small Hotel Glad to be Unhappy and the Balanchine ballet for Slaughter on Tenth Avenue. (437 084).

2nd Street (Drury Lane): No British equivalent has been found for New York's Jerry Orbach, but David Merrick's two-act extravaganza has been rapturously received. American Clare Leach is a real find as Peggy Sawyer, and Margaret Courtenay has a field day. (336 810).

TWO INTO ONE (Shaftesbury): Donald Sinden and Michael Williams head the cast of a blissfully funny farce by Ray Cooney in the old Whitchurch tradition. An irrele manager, Lionel

Jeffries, declares: "There's far too much sex going on in this play, and I'm not particularly fond of it." Not to be missed. (378 532).

Caroleana (Olivier): Peter Hall's best production to date of the National Ian McKellen's splendidly historic, thing of war, thrilling use of the Olivier's arena architecture, Irene Worth never better as Volpone. In all, a thoroughly lucid exposition of a great and complex play with an NT company that for once resembles an ensemble. (226 222).

Me and My Girl (Adelphi): Music, efficient and engrossing revival of British musical comedy musical hit with Robert Lindsay in the Lepino Lane role emerging as the best new musical star since Michael Crawford. (338 761).

Little Eyolf (Lyric Hammersmith): Isben's powerful drama of retribution strongly acted by Diana Rigg, Ronald Pickup and Cheryl Campbell but flawed by a pedestrian design. A great play not seen in London for 20 years. (711 211).

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NEW YORK

Cats (Winter Garden): Still a sellout, Trevor Nunn's production of T. S.

Indeed, a man of many parts



Roger Graef, left, and Jack Klaff

On March 21, 1980, at a time of tension during the African campaign against the pass laws, South African police fired on a crowd at Sharpeville, killing at least 69 men, women and children. Exactly 22 years later, last Friday, in similar circumstances, police at Uitenhage in the East Cape opened fire and killed 17 people.

The novel is clearly remembered for being the only large musical vehicle for Rosalind Russell (Pat Kirkwood played Ruth in London, with Shan Wallis as Eileen), but Bernstein's score, although far short of being his distinctive best, is nonetheless replete with goodies: the driving conga; with the surprise melodic leap; the superb company song number with its various syncopations and free associating lyric; the witty "What a Waste" with its classic litany of compromised artistic effort; and the generously romantic "It's Love."

No standards here, but good, honest, astringent writing by a master finding his voice. The band, under the direction of John Owen Edwards, plays with remarkable vivacity and indeed virtuosity. Performances this week and more next week at the Arts in Cambridge.

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By a sort of coincidence, *Negging Doubt*, Jack Klaff's play about students learning the tacky manners of musical comedy acting before they have requires, are blown away in a gaudy, energetic high spirits.

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Whether you accept that view or not, there is no doubt that Klaff's play gained added force and relevance from the reminder that, however much or however little else has changed in South Africa, the police there still open fire on crowds of unarmed Afrikaners.

Klaff's play is a ploy, a plot, a scheme, a strategy, a plan, a

nothing easy about doing what he has done—could be a trap. On the evidence of this play, he is not at present in any danger of setting for the superficially flashy; he has achieved a profound penetration into the viewer's mind.

There are, as I suggested, various possible reasons for this. The first, which applies particularly to a play like *Negging Doubt*—which contains a strong, political plea for the proposition that all men are equal; or, at least, ought to be treated as if they were—is that when the viewer sees a poor black victim of a police atrocity played by the same actor who plays Harold Macmillan or Hendrik Verwoerd, he is subtly reminded of their common humanity.

The point applies where even greater force, where murderer and victim are the same man.

That is what Graef means.

But Jack Klaff is not just

playing a virtuoso variety of different characters.

He is directed in

Negging Doubt with masterly self-effacement by Roger Graef, who is known as one of our most talented documentary film-makers and is now reverting to his original craft as a drama director.

Minimal, symbolic sets and clever lighting do more than accent the astonishing versatility of the insights Klaff can convey with his face, his body and his voice. Perhaps most remarkable is his ability not only to portray the black seadlers credibly, but to make each of them a distinctly realised individual portrait.

The technical achievement is

so stunning—"the wonder is

that it is done at all," as Dr Johnson said about the woman preacher—that it is important to ask why it is worth doing. Or, to put it another way, Klaff is technically so competent that the danger must be that audiences will admire him for his mere cleverness at "doing take-offs." The question is whether any special understanding is achieved because one actor plays every part.

The answer ought to be, I believe, a qualified affirmative, for several reasons, one of which applies with peculiar force to plays like *Negging Doubt*.

The affirmative must be qualified. I think, for the obvious reason (Klaff is too intelligent an actor not to be well aware of it) that his sheer facility—or, perhaps, energy and talent are better words, since there is

nothing easy about doing what he has done—could be a trap.

On the evidence of this play, he is not at present in any danger of setting for the superficially flashy; he has achieved a profound penetration into the viewer's mind.

The most interesting reason

of all for the same actor to play

so many parts in a play written by himself goes deeper.

It is that we do actually appre-

hend the world in our own

minds in a mode which is simi-

lar to this play than to conventional theatre.

We are moved, that is, not by the real world,

in its unknowable and mean-

lessness, but by a selection

of ghosts and shadows we

choose for ourselves freely.

Our emotions are

reawakened by characters of our

own making, on the internal

stage we carry round with us.

That is what Graef means.

I think, when he talks about

Klaff's technique offering a way

out of the "trap" of realistic

drama documentary.

That is all in the dangerous realm of

theory, however. What matters

is that in *Negging Doubt*,

helped by Graef's superlative

direction, Jack Klaff has

achieved that rare thing:

a work of serious art realised

perfectly for the sloppily, popul-

arly, infinitely powerful medium

that is television.

what was in the mind of the

writer. Actors and writer are

literally of one mind.

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Television/Godfrey Hodgson

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Wednesday March 27 1985

Leadership in education

THE GOVERNMENT has shown odd timing in publishing its White Paper called "Better Schools" when the schooling of thousands of children is being disrupted by teachers' unions. But the coincidence, while unfortunate, points up to the pressing practical problems that need to be overcome if the schools are to improve their service to their pupils and the country as a whole.

The protest by teachers who feel disgraced and underpaid is only a symptom of numerous deeper-seated ills. What the 450,000 school staff have been trained to do is in large measure out of line with the needs of children growing up to live in a society dependent on continuing advanced technology.

Curricula concentrate on imparting knowledge about academic subjects to the neglect of developing pupils' practical understanding and skills. The majority of children with aptitude for and interest in subject learning are mostly led by the dominance of public examinations into increasingly narrow specialisation from an early age, usually in either numeracy or literacy studies but not both. Children whose intelligences run in more down-to-earth directions are mostly offered a watered-down version of the standard academic curriculum which rarely either pleases or profits them. Often the main effect is evidently to give them a taste for formal structures which last for the rest of their lives. The institutional separation of training from education helps to saddle training with the image of an activity fit only for people aged 16 upwards who have failed in education.

Damaging

All of these faults underly a state education system costing taxpayers about £15m a year have been known about for years. They were under continual public discussion long before being criticised as economically and socially damaging at prime ministerial level in 1976, when Mr James Callaghan opened his so-called great debate on education. Today, three Education Secretaries later, the same debate continues. So do the same major faults.

What seemed to distinguish Sir Keith Joseph from his two immediate predecessors at the Education Department was that

Showdown in Denmark

THE NATIONWIDE strike against private employers in Denmark signed an acute stage in the crisis that has overtaken the system of centralised wage bargaining for which both the Danes and their neighbours in Sweden are famous. On the face of it, it is a classic labour dispute about wages and hours. But beneath the surface the entire system of wage determination has been challenged.

In broad outline, the systems of both countries resemble each other closely. In Denmark since 1959 and in Sweden for at least 30 years it has been the practice for wages and conditions of blue-collar workers to be negotiated at national level between the employers' and trade union federations.

Within the framework of these national agreements, industry-by-industry agreements and plant agreements provided limited scope for wage drift, that is increases in labour costs above those provided nationally. Behind this institutional framework there lay, at least until recently, an unwritten deal. The employers got labour peace. The unions got a means to enhance "wage solidarity" — increases weighted to be of more immediate benefit to the lower-paid worker.

During the period of post-war growth the system worked well enough. Both sides to the bargain got what they wanted. The rigidities which the system imposed upon the labour market were not obviously damaging.

Inflationary

Under the changed circumstances of the late 1970s and of the 1980s evidence accumulated indicated that something was wrong. Wage settlements on both sides of the Sound began to be inflationary. Differences of profitability between different industries and between enterprises widened. The better paid end those in the more profitable industries began to chafe under the solidarity system.

In Sweden and Denmark the problems were largely identical, but events took different courses. In Denmark the national wage agreement for 1983-84 was accompanied by a change of procedure which reduced the scope given to the well paid metal workers for

topping-up pay during the lifetime of the agreement. This raised bad blood since it coincided with a period of good profitability in the engineering industry.

That is not the immediate cause of the Danish strike. But differences between the skilled workers in the export-oriented engineering industry and the union for unskilled workers greatly complicated the search for a settlement with the employers. The skilled wanted a moderate overall settlement with good extra money, for the unskilled wanted a good increase for the badly paid, conjuring up the danger of a settlement that would have been inflationary overall.

In Sweden similar circumstances caused centralised bargaining to be suspended last year. This was followed by an inflationary push and a deterioration of the external current account. The Socialist government, which faces a difficult election campaign this autumn, decided that to regain control it must set a low inflation target of 3 per cent by the end of 1985 and bring the unions to support it by limiting the increase of labour costs to industry to 5 per cent. Success would provide a real increase in purchasing power, however narrow.

Incomes policy

This amounts to a voluntary incomes policy which the government is prepared to back with tax changes to increase disposable incomes if inflation remains too strong to let real wage rises materialise. In Denmark, too, the likely outcome of the struggle will be an incomes policy consisting of a legally imposed settlement shored up possibly with tax measures and some controls.

The Scandinavian experience with centralised bargaining is mixed. It has functioned well enough in circumstances of prolonged growth. In more difficult times it has not lived up to expectations. The underlying social consensus has served both countries well. But dangerous pressure could build up if no scope is allowed for greater flexibility in labour markets and wage determination.

OFF AND ON over the last couple of months, the people of Japan have had an alternative TV entertainer to fill their afternoons.

He may not have the heroic stoicism of the samurai soap opera hero or the powerful nobility of the sumo wrestler, whose six time he often pre-empted, but Yasuhiro Nakasone answering questions for hours on end in the Diet is an undeniably impressive performer. Articulate and relaxed, nimble of mind as he switches from subject to subject generally without reference to notes, and sometimes funny, he is very much in his element.

But it is a show on which,

in the opinion of most observers of the Japanese political scene, the curtain is going to come down soon. Nobody likes predicting exactly when, though, after 28 months, the end of the run is almost certainly closer than the beginning, but everybody knows why: the presumed major shift in the political balance of power inside the ruling Liberal Democratic Party brought on by the illness of Mr Kakuei Tanaka, the current Prime Minister's chief protégé.

Left unanswered, however, is a much more difficult and important question, which is whether Mr Nakasone, who has created such a favourable impression in Washington, London and the West's capitals during his term in office, has made a measurable difference both to the way Japan looks at itself and at its place and responsibilities in the world.

This is no idle, philosophical issue, but one with pressing, current ramifications. Japan is being asked, especially by its best friend, the U.S., for some substantial changes in the way it conducts its affairs. Though the framework is commercial—the product of a \$34bn bilateral trade surplus with the U.S. last year and possibly a much bigger one this year—the implications extend to Japanese society, politics and national security.

Mr Nakasone has seemed to be the Japanese leader most receptive to the sort of international pressure to which Japan is now subject. The Reagan Administration, to put it bluntly, expects him as a politician, to deliver at least a reasonable number of the goods.

In a generally collective society like Japan's, one of whose key premises is the avoidance of public conflict, individual leadership is hard to establish and even harder to sustain. In the often arcane world of Japanese politics, figures fix across the stage like Burnham Wood en route to Dunsdale—six Prime Ministers in one decade, 1972-82; for example, six MITI Ministers in the last four years alone—but with generally minimal impact on the actual running of the country.

There are several specific reasons for this. Most Japanese politicians are, first and foremost, constituency MPs, intent on tending their electoral cabbage patches and little else; to be seen to be interested in the wider world may even be a handicap.

Most are also obliged to devote unbelieveable amounts of time and effort to raising money, without which their political careers cannot flourish.

An MP's salary, with allowances, can exceed £70,000 a year, but that is only a fraction of what may be needed. For instance, when Mr Noboru Takeshita, the Finance Minister, recently set up a political support group inside the Tanaka faction, each of the 40 MPs who attended

the inaugural meeting was paid ¥3m (£9,750) from Takeshita coffers. And Mr Tanaka, who did not approve (he said Mr Takeshita was trying to buy support "too cheaply") paid double that to the 40 who wanted to go but were induced not to do so.

Underpinning the system is a tacit recognition by all concerned (though not necessarily, as we shall see, by Mr Nak-

Both a player of the game and a loner

some) that the country operates best when the politicians confine themselves to public theatre and leave the substance of policy to others, in the main the civil service and business. To reach the Cabinet, even to become Prime Minister, is more a testament to having played the political game well than a proof of broader abilities.

Mr Takeshita is the pre-eminent politician of the post-war years simply because he played it better than anybody else. But today probably only his well-endowed constituents from Niigata Prefecture have more than a scant recollection of his record as Prime Minister from 1972-74, beyond the nor-

mobilisation of relations with China and a few new bullet train lines. But somehow, it all works—and well, given where Japan is today.

Mr Nakasone is a curious amalgam; he is both a player of the game, good enough to get Mr Tanaka's support and make it to the top, but a loner. His early idiosyncrasies—writing complaining letters to General Douglas MacArthur, for instance, or always voting in his Imperial Navy uniform—marked him out as a nationalist, which he very much remains, but in a rather narrow, symbolic sense.

But, as a politician, as he has through the system, he was also known for the unusual talent of trying to master whatever briefs he was given. In the present climate, it is particularly significant that he is the first Japanese Prime Minister to have previously served at both the Defence Agency and MITI.

Since becoming Prime Minister, he has continued to nibble away at some of the shibboleths that, to the outsider, always seem so inhibiting of real public debate in Japan. He has not gone so far as to try to rewrite the existing peace constitution (an earlier ambition), but he has taken to turning up at the Yasukuni Shrine, which honours Japan's killed

in action, in his official capacity and not, as his predecessors preferred, as a private citizen.

He has, after a few false starts, finally attacked the 1976 guideline that defence spending should not exceed 1 per cent of gross national product—probably much to the relief of his would-be successors who do not want to be saddled with the same problem. He has argued consistently that Japan must recognise that its security interests lie with the West. This may not seem much, but Japan professed to be traumatised as recently as 1981 when the then Prime Minister, Mr Zenko Suzuki, publicly referred to the U.S. "alliance."

Nakasone has, in sum, managed to broaden the dimensions of what public argument there is over national security.

He has also at times, and with only varying success, tried to take on the all-powerful bureaucracy. Trade concessions are probably not the most significant of these, though they are the most sensitive. But he may have weakened his country to degree, to the fact that its civil service, for all its skills and qualities, is not always well equipped to handle complex international trading problems.

Mr Nakasone did not invent

(NTT, the telecommunications authority, and the tobacco and salt monopoly) which, while not as his predecessors preferred, as a private citizen.

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Nakasone has, in sum, managed to broaden the dimensions of what public argument there is over national security.

More important is his push for reform of the educational system, largely on the grounds that it embodies rigidities in its concentration on examination

and not, as his predecessors preferred, as a private citizen.

He is also, curiously, afflicted by the fact that, no matter what he does or how fit he looks, he is perceived by the power brokers as the last of the old generation of post-war politicians who got their start together after the war—Tanaka and other living former Prime Ministers, Fukuda, Sasaki and Miki. The seems in Japan have decreed that the torch must pass to the "new leaders" (Takeshita, Shintaro Abe or Ichiro Miyazawa) or, in the event of a transition, to a caretaker veteran, like Susumu Nakada or Shin Kanemaru.

And these are men who, for the most part, have been hiding their policy lights under bushels with the possible exception of Mr Miyazawa, a relative economic liberal. They seem to be more conventional products of the system, as it was.

On the other hand, though, Japan has shown itself capable of changing direction completely (the abandonment of Feudalism with the Meiji Restoration, the adoption of democratic forms after the last war), it prefers to avoid such catastrophes.

Mr Nakasone's own ideas on education reform are interesting. On the one hand, he calls for "Japanese-style," including the restoration of traditional family values (including women at home not in the labour force) and decent the perceived patriotic legacy of the U.S. Occupiers and its role learning that could harm Japan in the longer haul. In so doing, he is posing challenges to one of the most powerful entrenched Ministries, Education, the guardian of what is right and proper in Japan which has seen its duties largely in terms of ensuring a steady supply of trained and compliant labour to Japanese industry.

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THIS YEAR the British will spend nearly £50bn on leisure, something between a quarter and one fifth of all consumer spending. It is a honeypot of such vast and growing proportions that the investment bees are buzzing with excitement. The problem is: where to land?

For some it is a question of not really knowing where the next surge of growth will be. "In a few years I know there will be another division (in our group). At the moment I do not know which that will be," says Mr Cyril Stein, chairman of Ladbrooke, talking of the variety of projects on the group's back-burner.

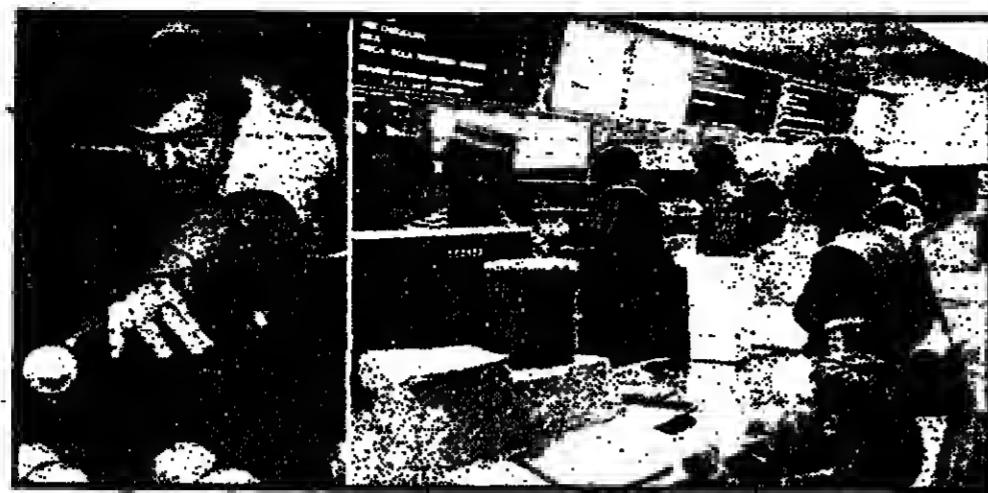
For others it is a concern at the casualty rate and the problems of cultivating small, entrepreneurial businesses in the centrally-controlled ones. "We are in big business. We do not really want to be first into some of these fields," says the Rank director in charge of its holiday activities, Mr Angus Crichton-Miller.

The use of the word leisure, and any description of the size of the market, tends to lead to argument. Is the broad industry definition is used, any activity involving discretionary income or time—the net is thrown over books and magazines, non-essential food spending, holidays... and so do-it-yourself. Analysts tend to lump everything from tobacco and drink to television and clothing (the "essential" element of clothing being minimal) into the leisure basket.

The diversity that is shown by the ingredients in this bouillabaisse of leisure makes corporate comparisons difficult. What notable exceptions, such as Ladbrooke First and perhaps Rank, most of the leisure majors are conglomerates, many of the leisure activities of which stem from relatively recent acquisitions and only occasionally from a creative spirit.

Thomson Holidays, the market leader in travel, is a subsidiary of the Thomson Organisation and itself the result of purchases long ago of such companies as Gayours and Sunair. Thomas Cook, the big travel retailer, is a Midland Bank subsidiary. Rank and Thorn-EMI are groups born of the rump of former leisure empires.

It is the minnows which provide the innovative spine: for example, First Leisure's plunge into the boom area of snooker halls, Kuncik's theme parks (planning permission was announced yesterday for its proposed £750,000 venture in Wandsworth, south London), and Pineapple's Dance Studios. It is fascinating to note that while Ms Debbie Moore's investment attractions are perceived to have faded, it is old stalwarts like Lord Delfont of First



From snooker cues to hamburger queues: the scope of leisure is expanding

UK LEISURE INDUSTRY

The buzz round a £50bn honeypot

By Arthur Sandles

Leisure and Sir Fred Poatn of Kuncik who are now the City darlings.

What has caused particular problems in the leisure industries over the past 20 years is the decline of the mass audiences—spectator sport, the cinema, and even scheduled television—and their replacement by a complex array of leisure attractions. Rank and Thorn-EMI have endured the corporate agonies of adaptation to a decline in cinema audiences; the brewers have been forced to segment their market and erode the one-time single image of "The British Pub"; soccer and cricket are shedding their fans to games such as racket sports. It is significant that more people take part in the London Marathon than can be expected at the average London soccer match.

The trend has by no means halted. It is a key assumption in the predictions of industry analysts and leisure consultants that the next few years will see "greater fragmentation in leisure patterns and more varied and flexible use of leisure facilities, including the home."

Adapting to that fragmentation is not always easy. Rank's new chief executive, Michael Gifford, has turned from gong-

man to axeman in hiving off what is regarded as superfluous activities (intriguingly enough in non-leisure that bus left the blade). But the City now wants to discover what Mr Gifford plans to do in a positive way.

Small entrepreneurial activities seem to hold little charm for the revamped Rank: "We know our strengths," says Mr Crichton-Miller. "We are best when we cater for a lot of people. We have the resources and the skills to make normal volume businesses."

The Crichton-Miller argument is that innovators are all very well when innovating, but rapidly run out of puff when increasing size and passing new lead to demands for new management skills, training and sheer financial muscle. He cites Butlin's—which looks like having a bumper year as the British return to their home shores for their holidays—as an organisation which, without Rank, would not have had the managerial or financial resources to meet changing consumer demands.

The Rank argument is that the leisure conglomerates are best off "fighting battles on grounds that suit them." Adapting to that fragmentation is not always easy. Rank's new chief executive, Michael Gifford, has turned from gong-

businesses, first of dance studios and more recently of snooker balls. One man who would probably reject that charge is Mr Stein, who has come such a marvellous turnaround as "entrepreneurial" and "synergy" into group love.

Let us pass over the fact that at least one broker recently referred to Ladbrooke as "no longer a leisure company, but a U.S. property operation" and look instead at its plunges into such varied projects as blind-snooker balls, fast food and U.S. race tracks.

The Ladbrooke basic tactic, where individual flair rather than organisational strength is the priority, has been to leave the innovators with a slice of the action. Thus it has only 70 per cent of Lantion Leisure, the Scottish-based snooker club acquisition, the rest being retained in the June 1983 purchase by its founder Harvey Fields. It has 75 per cent of Cabelotel communication, the cable TV operator manqué, and 75 per cent of Olivers, a fresh bread and coffee shop chain.

Through these substantial minority holdings, and through a share option scheme, that bites deep into the rest of the corporate structure, Ladbrooke tries to encourage entrepreneurs to resist the soft life of the executive chair and one eye

tell what the costs of the present National Insurance scheme would be in 40 years time. It might even be outside the range quoted. This means that Government should be very careful not to make promises which may lock future generations in to giving benefits quite inappropriate to the situation at the time.

R. B. Colben
Martin Paterson Associates,
10, Buckingham Place, SW1.

Back to real local politics

From Prof G. W. Jones and Prof J. D. Stewart

Sir—Too often in the past local government elections have been reported in the national press as if they were national opinion polls. That they are local government elections has almost been ignored. There has been little attempt to explain, or even to discuss, the increasing variations in these local election results between different localities.

At a time when local politics has become more vigorous, and the differences between local parties much greater, it is not surprising that there are significant variations in local election results. The readiness of a growing number of electors to distinguish their votes in local elections from their preferences in national elections has been confirmed by survey evidence.

The press has a major opportunity to raise the country's consciousness about this change in our political system in the coming county council elections. They should be reported as local elections, and not just as indicators of the popularity of national parties and the Government in the centre.

G. W. Jones
Professor of Government,
London School of Economics
and Political Science,
J. D. Stewart
Professor of Local Government
and Administration,
Birmingham University.

A guide for rainmakers

From Mrs Adair Heimann

Sir—in his article on March 18 Mr McKnight attacks the Government Actuary clearly relies on new readers saving his 1984 rate ready to hand. Those that do will find a chart showing that future National Insurance contribution rates on seven sets of different and carefully specified assumptions, with basic pensions linked only to prices. A further chart shows the result on all seven sets of assumptions, if basic pensions are linked to earnings. The range of possible contribution rates for 40 years hence is then from 104 per cent to 25 per cent. Readers can take their pick.

Although current legislation obliges Government to increase basic pensions only in line with prices, it is unrealistic to consider future costs solely assuming that they will be held down in this way. On a 2 per cent economic growth rate this would mean that basic pensions would fall to less than one-half of their present relationship to earnings. Can anyone seriously suggest that this is likely to be allowed to happen?

Rather than pretending that Mr Johnston has overstated future costs, the more obvious conclusion is that no one can

on the pension.

Ladbrooke's system of the purchase of small innovative businesses which need corporate muscle behind them helps to overcome the other problems of rapid expansion of businesses from within, middle and lower management. Imperial Brewing and Leisure chairman Michael Pickard reckons this to be one of the main obstacles, particularly in catering.

Mr Pickard is one of the breed of British entrepreneurs which is doing its best to change catering's lack lustre image.

Dozens of pubs have been converted into restaurants, others revamped to place a greater emphasis on food, and a string of "theme" projects have been developed.

Rank reported a five-year period, spent over a five-year period, Mr Pickard and Imee are following a path already well trodden by such American operations as Victoria Station and a strange chain that runs restaurants like World War Two officers' messes.

Mr Pickard tends to dot his conversation with the buzz-word, entrepreneur, but in his case he is the task of providing sufficient challenge and reward for such freethinking minds while harnessing them with clear targets and responsible cost and quality control to the disciplines of a large company.

Just where these disciplines will be applied in future by the leisure major is a matter of considerable guesswork. The very volatility of leisure markets, amply demonstrated in the current season by the performance of the package holiday trade, tends to make normal prediction processes difficult.

As brokers Capel Cure Myers says ruefully: "As the events of the past few weeks have clearly demonstrated, economic forecasts are only as good as the assumptions upon which they are based." And forecasts are the backbone of the leisure industry. Nonetheless, Capel Cure Myers is optimistic, not

about the future of the Ecu loans but about the expansion potential of such loans.

Mr Pickard tends to dot his

FOR a long time people have concentrated more on the dark sides of the EEC than on the bright ones.

The only exception appears to be the EMS, which has been functioning without much fuss for two years. In addition the Ecu market is growing in importance, which are virtually in itself without the politicians doing anything. Not surprisingly, therefore, recent propositions focus on the encouragement of the use of the Ecu and on further developing the EMS: i.e. overcoming the still existing imperfections. The private use of the Ecu in particular has become strongly supported by Community institutions.

The German Bundesbank is

being pilloried for stubbornly refusing to give the privately used Ecu the status of a currency.

It prevents the appearance

of private Ecu accounts in

Germany and thereby is al-

ready obstructing European

monetary integration. Now is

this really the case?

As a composite unit of account derived from the exchange rates of national currencies the Ecu is not a legal tender, not money issued by a monetary authority and therefore not a currency. As "money" accepted for payment purposes it has only intermediate character.

At the beginning and end of payment operations there is always a

national currency.

The need for the private Ecus

in transactions is by no means

as great as its advocates would

have us believe. And where it

exists at all, it does not derive

from a widespread desire for a

European currency but from

the wish to reduce exchange

rate risks in intra-Community

transactions. This con-

clusion can be drawn very

clearly from an analysis of the

Ecu market.

The high exchange rate risk

can be taken to be the only

reason why cross-border credit

mediation is not based on

national currencies. Apparently

the current exchange rate struc-

ture in the EMS is not regarded

as being as stable as it has been

in the past two years. Conse-

quently, private use of the Ecu

reflects the continuing short-

comings in economic and

monetary policy integration.

If we do not want to put the

cart before the horse, progress

in the EMS must not be defined

as institutional further develop-

ment. Instead, it must be seen

as the elimination of the still

existing weaknesses.

The UK still does not partici-

pate in the exchange rate

mechanism. Nor does it show

any inclination to join in the

European future. It is con-

tinuing to make use of the only

intentionally intended margins

of 6 per cent which were only

intended for a transitional

period because the inflation

differential is still too wide.

The lack of economic conver-

gence is causing France and

Italy, among others, to adhere

to their restrictions on capital

movements which are pretty

much of anachronistic six

years after the start of the

EMS. In both countries the

Ecu is recognised as foreign

exchange, but only for the

reason, logical enough, that it

can be subjected to the restric-

tions in force there on capital

movement. For French citizens,

for example, to open an Ecu ac-

count is a de facto ban on

holding Ecu accounts but also

prevents them from acquiring

Ecu claims in unlimited

amounts as their German

counterparts about Germany

being hostile to the Ecu can

only arouse astonishment.

The Bundesbank supports all

efforts which might lead to the

removal of existing weaknesses

in the EMS. The reduction of

intra-Community restrictions on

capital movements must be

given priority, because free

capital movements are the

essence of the system and be-

cause they, in particular, generate strong pressure towards monetary discipline.

Each EEC member-country

has its domestic problems and

they must solve them within a

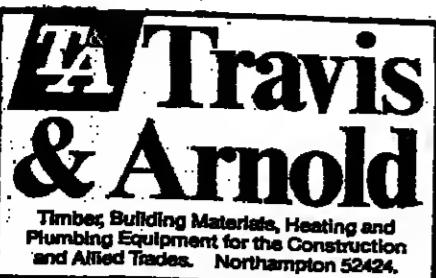
national framework. The com-

mission to exercise monetary

discipline can help here. It

represents something like a

<p



SECTION II - INTERNATIONAL COMPANIES FINANCIAL TIMES

Wednesday March 27 1985



AT&T unveils personal computer

By Paul Taylor in New York

AMERICAN Telephone and Telegraph (AT&T), the US telecommunications group, yesterday released its long-awaited new personal computer, together with a range of other office automation products.

The new products, which emphasize AT&T expertise in data communications, are seen as extending the battle with its arch-rival IBM.

The new AT&T computer, developed and manufactured by Computer Technologies, is called the AT&T Unix PC - after the group's powerful Unix computer operating system - and costs from \$5,000.

The new machine, aimed at business customers, combines extensive voice and data communications capabilities with the capacity to do several jobs at once for more than one person.

The Unix PC is available immediately and will be marketed directly and through retail channels. AT&T said 28 applications programmes are available for the machine immediately and it plans to double the number by mid-year.

Separately AT&T also released:

- A small low cost, high-speed Local Area Network (LAN), which links computers running either Unix or the popular MS-DOS operating systems together using existing telephone cables. The new network, called Starlan, will be available beginning in the fourth quarter and a typical system linking together a Unix-based computer and an MS-DOS machine will cost about \$1,500.
- A new touch-screen office workstation called the AT&T personal terminal, which will link up with AT&T's private business exchanges (PBX's).

Sohio to close biggest copper mine in U.S.

BY WILLIAM HALL IN NEW YORK

BRITISH Petroleum's majority-owned US subsidiary, Sohio, has moved to curb the heavy losses at its Kennecott mining subsidiary and suspended operations indefinitely at its Utah Copper division, which controls the biggest copper mine in the U.S.

The closure of the Utah Copper division is the latest in a series of setbacks for Kennecott, which was acquired by Sohio in 1981 for \$1.8bn. Sohio lost \$160m on its mining operations last year and estimates that its losses in the latest quarter are about \$40m.

There has been growing speculation in recent months that Sohio would soon be forced to act to curb the heavy losses being incurred by Kennecott, and there have been suggestions that the company might try and dispose of its interest in this expensive acquisition. Mr Alton Whitehouse, Sohio's chairman, said in the company's latest annual report that the group's metal min-

ing business was "causing us a great deal of concern."

Mr G. Frank Joklik, Kennecott's president, says the company's losses have reached the point where "we can no longer sustain the operations of the Utah Copper division." Utah is Kennecott's most important operating subsidiary, but has been operating at one-third capacity since July 1984, when 2,000 employees were laid off. Utah, which was employing over 7,000 at the time of the takeover, will lay off the remaining 2,200 employees over the next six months. The operation will be put on a "care and maintenance" basis and will employ 250 staff.

Kennecott blames continued ad-

verse market conditions, high labour costs and antiquated facilities for the need to close down Utah, which, even at its current reduced capacity, employs considerably more people than all Kennecott's other copper mines put together.

Ohio sues bank officers

BY OUR FINANCIAL STAFF

THE STATE of Ohio has filed a \$423m lawsuit against officers of Home State Savings Bank, the thrift whose collapse sparked a run on deposits earlier this month which caused the temporary closure of 70 state-insured Ohio savings associations.

The suit seeks \$144m in compensatory damages and \$268m in punitive damages "against a number of officers and directors of Home

State," including Home State's principal owner, Mr Marvin Warner, said Mr Bob Trafford, a lawyer representing the Ohio Commerce Department.

The state's legal experts are fin-

ishing work on legislation designed to speed up the acquisition of Home State, which is based in Cincinnati.

All but a few of the 86 thrift institu-

tions which closed on March 5 were open again by Monday.

Redemption Notice

GTE Finance N.V.

(Incorporated with Limited Liability in the Netherlands Antilles)

U.S. \$50,000,000 13 1/4% Guaranteed Bonds due May 1, 1987

NOTICE IS HEREBY GIVEN that pursuant to the provisions of the above-described Bonds ("Bonds") and of the indenture dated as of May 1, 1980 under which the Bonds were issued, GTE Finance N.V. has elected to redeem all of the outstanding Bonds on May 1, 1985, at the redemption price of 100% of the principal amount thereof, together with accrued interest to May 1, 1985.

On May 1, 1985 the Bonds shall become due and payable. The Bonds will be paid upon presentation and surrender thereof together with all unmatured coupons appertaining thereto, failing which there shall be deducted from the redemption price an amount equal to the face amount of all such missing coupons. Payments in respect of the redemption price and accrued interest on the Bonds shall be made in such coin or currency of the United States of America as at the time of payment shall be legal tender for the payment of public and private debts and will be made at the option of the holder either (a) at the corporate trust office of Citibank, N.A. in the Borough of Manhattan, New York City, or (b) subject to any laws or regulations applicable thereto in the country of any such office, at the main offices of Citibank, N.A. in London (Citibank House), Brussels, Frankfurt, Paris and Zurich, the main office of Citicorp Bank (Luxembourg) S.A. in Luxembourg and the main office of Morgan Guaranty Trust Company of New York in Brussels. Payments at the offices referred to in clause (b) above will be made by a United States dollar check drawn on a bank in New York City or by transfer to a United States dollar account maintained by the payee with a bank in New York City.

Coupons due on or before May 1, 1985 should be detached and collected in the usual manner. On and after May 1, 1985, the date fixed for redemption, interest on the Bonds will cease to accrue.

Dated: March 27, 1985

Under the United States Interest and Dividend Tax Compliance Act of 1983, any payment made within the United States, including payments by transfer to an account maintained by the payee with a bank in the United States may be subject to reporting to the United States Internal Revenue Service (IRS) and to backup withholding of 20% of the gross proceeds if payee was not recognized as exempt recipient fail to provide the paying agent with an executed IRS Form W-9 in the case of non-US persons or an executed IRS Form W-9 in the case of US persons. Those holders who are required to provide their correct taxpayer identification on Internal Revenue Service Form W-9 and who fail to do so may also be subject to a penalty of U.S. \$50. Please, therefore, provide the appropriate certification when presenting securities for payment if payment within the United States is sought.

Aga Khan purchases Italian hotel chain

By Our Milan Correspondent

THE AGA KHAN, spiritual leader of 15m Ismaeli Moslems, yesterday became Italy's premier hotelier by purchasing the luxury Ciga hotel chain from Sig Orazio Bagnasco, the beleaguered financier whose property empire is facing liquidation and criminal investigations.

A purchase price was not disclosed, but it is believed that the Aga Khan, together with a "group of investors" will be paying at least \$40m for the control of Fimpal, a Bagnasco company which in turn owns 50.03 per cent of the publicly-listed Ciga group. The news of the Aga Khan's hotel venture came too late to affect the Milan bourse, where Ciga's share price yesterday fell by Ls88 to Ls250.

The Aga Khan's aide stressed that the Swiss-born religious leader is acting "in a personal and not an institutional capacity." But he has not renounced from securing institutional finance - the Ciga acquisition is to be funded through an international bank syndicate led by American Express Banking, Lloyds Bank International and Swiss Bank Corporation.

Aside from a certain fondness for racing horses, the Aga Khan's other main investment is to be found along Sardinia's Costa Smeralda, where for more than 20 years he has been president of the development consortium. Last year the consortium's tourism, property, airline and shipyard interests in Sardinia produced Ls150m (\$73m) of turnover. It is clear that the Aga Khan intends to combine his newly-acquired Ciga interests with those in Sardinia.

Ciga, for its part, recorded Ls185m of turnover in 1984 and a pre-tax profit of Ls6m. But Sig Bagnasco, the Lugano-based financier who bought Ciga four years ago, obviously has decided the attractions of a luxury hotel chain are outweighed by the Aga Khan's offer of cash.

Mr Toupin, aged 63, was elected vice-chairman in 1978

Montedison ends crisis with executive shake-up

By ALAN FRIEDMAN IN MILAN

MONTEDISON, Italy's chemicals, health care and energy giant, yesterday unveiled a major management reorganisation which was described as the result of three years of intensive labour at the Milan-based group.

"We have emerged from our crisis period and can now look ahead to generating profits," said Mr Howard Harris, Montedison's American-born vice-president for strategy.

Mr Harris said there were three main reasons behind the reorganisation, the business market coherence of numerous Montedison companies "was absent in the past."

There was a need to create autonomous and self-financing profit centres, and finally there was a desire to decentralise decision making.

The group, which is likely to report a relatively small 1984 loss of around Ls40bn (\$18.6m) on Ls1.400bn of consolidated turnover, has engaged in a radical restructuring of its 1983 "business areas" which fit into 41 different industrial sectors and are to be run by nine managing directors who will report

to the Montedison holding company's top management.

Behind much of the change has been Sig Mario Schimberni, Montedison president who has recruited foreign executives, supervised a major strategic rethink and sold off a number of lossmakers while reducing the group's workforce from 82,500 in 1981 to its current level of 62,200.

Montedison said yesterday that all the nine new business groupings, ranging from chemicals to consumer goods, were in profit last year, with the exception of the Farmagplant crop protection subsidiary.

Thus the 1984 loss, which compares with a 1983 loss of Ls222m and a 1982 record deficit of Ls365m was caused largely by heavy debt servicing charges on the group's Ls4,000bn of total indebtedness.

Mr Harris said that the finishing touches on the new group structure were completed only in the past few weeks. Under the new structure a vast array of businesses were regrouped so that each of the nine

managing directors is responsible for most decisions, including fi-

nance and foreign sales. The group's international division has been abolished.

The nine divisions are energy, which last year had Ls4,000bn of turnover and 2,001 employees, petrochemicals and plastics, with Ls2,427bn turnover and 13,501 employees, synthetic fibres, with Ls665bn turnover and 5,178 employees, fertilisers, with Ls908bn turnover and 3,686 employees, functional chemicals with Ls768bn turnover and 4,633 employees, special materials with Ls520m turnover and 3,104 employees, health care with Ls1,655bn turnover and 10,249 employees, consumer products with Ls495bn turnover and 5,086 employees, and other products and services such as the Standa retailing group, with Ls2,200bn turnover and 14,386 employees.

Because some holdings are not full subsidiaries these figures do not match group consolidated accounts. Not included in the nine new divisions is the 50-50 Hilmont polypropylene joint venture between Montedison and Hercules of the US.

Renault to back AMC Canadian expansion

AMERICAN Motors Corp (AMC) is to seek shareholders approval for a stock plan in which Renault of France has agreed to provide financial backing up to CS150m (\$109m) plus interest for AMC's proposed new assembly plant in Canada, Renault reports from Michigan.

Renault is a major AMC shareholder, with 48 per cent of the equity. AMC said failure to gain approval for its new preferred stock and warrant agreement with Renault would jeopardize its \$275m Canadian project, which it calls a "critical element" of the company's strategic plan for the U.S. car market.

The stock agreement involving Renault, AMC and the American automaker's Canadian subsidiary AMI, dated December 4, 1984, is disclosed in the proxy statement mailed to AMC shareholders in advance of the company's April 24 annual meeting.

Mr Jean-Marc Lepetit, AMC vice-president and chief financial officer, said the agreement provided for Renault to give partial support for the planned plant in Brampton, Ontario, "in case AMC or AMI cannot face the obligation."

"It's a very simple operation by which Renault is committed to buy preferred stock in AMC with proceeds to go to pay the Canadian banks," he said.

Burroughs new mainframe

BURROUGHS, the US computer group, introduced its new A-15 mainframe computer system which it said will perform at speeds 2.6 times greater than its B-7000 mainframe, AP-Dow Jones reports.

The company said advanced semiconductor technology and improved memory disk storage capacity will make the new system the most powerful that Burroughs offers.

BankAmerica executive steps down

By Our New York Staff

MR ART TOUPIN, a vice-chairman of BankAmerica, has announced his decision to take early retirement. His departure is the latest move in a slow but extensive reshuffling of the top management of the second biggest US banking group.

Mr Toupin, who plans to retire from active management during 1985 is the third of the group's four vice-chairmen to step down over the last year.

Mr Toupin, aged 63, was elected vice-chairman in 1978

Sealink purchase lifts Sea Containers profit

By Our New York Staff

SEA CONTAINERS, the Bermuda-based shipping group, lifted 1984 net earnings by 82 per cent to \$76m, helped by the acquisition in July of Sealink UK from British Rail.

The 1984 profit figures, equivalent to \$5.67 per share, compare with earnings of \$38.5m or \$2.49 in 1983. Fourth-quarter net profits, however, rose less sharply from \$12m or 86 cents a share to \$13.1m or 98 cents, although the company said the latest figures were "on target."

Revenues rose sharply, reflecting the Sealink purchase, from \$143m

Restructuring charge for General Mills

By Our New York Staff

GENERAL Mills, the Minneapolis-based diversified consumer products group, is taking a \$113.8m charge to cover its restructuring. The group plans to sell its fashion interests and spin off its toy business to shareholders.

Several companies had shown interest in buying the group's toy business since it was put up for sale at the end of January. However, General Mills said that although bidders had been prepared to pay more than book value for the toy operations, tax problems would have meant that the cash proceeds would have been significantly reduced.

As a result it had decided to establish its toy business, which has annual sales of \$780m, as an independent company and distribute its shares on a pro-rata basis to its shareholders. Details of the spin-off plan, which is not subject to shareholder approval, will be announced shortly.

As a result of the \$113.8m charge, General Mills expects to report a net profit of \$38.7m

This announcement appears as a matter of record only.

HONDA MOTOR CO., LTD. (Honda Giken Kogyo Kabushiki Kaisha)

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3 1/8 per cent. Notes due 1990

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Amsterdam-Rotterdam Bank N.V.

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Nomura International Limited

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All of these securities have been sold. This announcement appears as a matter of record only.

COMPAQ®

COMPAQ COMPUTER CORPORATION

\$75,000,000

9 1/4% Convertible Subordinated Debentures Due 2005
Interest Payable on June 1 and December 1 in Each Year

The Debentures are convertible at any time prior to maturity into Common Stock of the Company at \$11.50 per share, subject to adjustment in certain events.

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BEAR, STEARNS & CO.	THE FIRST BOSTON CORPORATION	ALEX. BROWN & SONS Incorporated
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We are pleased to announce the following elections

Managing Directors

John K. Hepburn, Investment Banking, London
Peter J. Ogden, Investment Banking, London
Geoffrey W. Picard, Fixed Income, Tokyo

Principals

Miguel J. Caparros, Investment Banking, London
Toshio Ozeki, Investment Banking, Tokyo
Alan M. Goodhill, International Equity, London
John H. Murray, Investment Banking, Sydney

Vice Presidents

George A. Clark, Fixed Income, London
Karl P. Essig, Capital Market Services, Tokyo
Patrick J. Foley, International Equity, London
Kohei Hotta, Administration, Tokyo
Frederick B. Krom, III, Fixed Income, London
Richard J. Kyle, International Equity, London
Antony W. Wood, Fixed Income, Tokyo

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Ote Center Building
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Tokyo-To 100, Japan

March 1985

U.S. \$100,000,000



Red Nacional de los
Ferrocarriles Espanoles
Guaranteed Floating Rate Notes Due 1991
Irrevocably and unconditionally guaranteed by
The Kingdom of Spain

In accordance with the provisions of the Notes, notice is hereby given that for the six month interest period from 27th March, 1985 to 27th September, 1985 the Notes will carry an interest rate of 9 1/4% per annum. The interest amount payable on the relevant Interest Payment Date which will be 27th September, 1985 is U.S. \$260.35 for each Note of U.S. \$5,000.

Credit Suisse First Boston Limited
Agent Bank

Banco Nacional do
Desenvolvimento
Economico
U.S. \$50,000,000
Floating Rate Notes 1989

Notice is hereby given
pursuant to the Terms and Conditions of the Notes that
for the three months from
27th March, 1985 to 27th June, 1985
the Notes will carry an interest rate of 9 1/4% per annum.
On 27th June, 1985 interest of U.S.\$24.75 will be
due per U.S.\$1,000 Note and U.S.\$247.57 due
per U.S.\$10,000 Note for Coupon No. 24.

European Banking Company Limited
(Agent Bank)

27th March, 1985

March, 1985

INTL. COMPANIES & FINANCE

Citicorp plans Japanese trust banking subsidiary

BY OUR FINANCIAL STAFF

CITICORP

of the U.S. plans to establish a trust banking subsidiary in Japan following the November agreement of the Ministry of Finance to allow eight foreign banks to enter the sector.

The Tokyo branch of Citibank

said it would advise the MoF

of its intentions this week,

ahead of the March 31 deadline

for submitting licence applica-

tions.

Citibank has been negotiating

a co-operation agreement with

Yasuda, which in gross income

terms ranks currently as the

fourth largest of the "seven

"pure" Japanese trust banks.

Several other major U.S. and

European financial institutions

have been contemplating links

with local trust banks as a

means of entry.

The other banks being sug-

gested in Tokyo as the most

likely recipients of licences

are Barclays of the UK, Credit

Suisse, Morgan Guaranty,

Bankers Trust, Chase Manhat-

tan and Chemical Bank.

One other tie-up which is

reportedly being arranged is

between Bankers Trust and

Suntomo Trust and Banking

Number three in income terms.

This route is generally regarded

as more cost-effective than a

foreign bank setting up a

wholly-owned subsidiary from

scratch.

The MoF has undertaken to

decide on the eight licences by

June, which effectively delays

any start of business until the

autumn.

Japanese trust banks, al-

though showing strong profit

increases, mounted an initial

campaign of resistance against

the opening up of the country's

incentive and fast-growing

private pension fund market, which

they have long shared only with

the 21 Japanese life insurance

companies. Together they have

an estimated \$12,000m

(\$48.8bn) or more of corporate

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INTERNATIONAL COMPANIES and FINANCE

INTERNATIONAL APPOINTMENTS

IBM reassigns PC division president

BY LOUISE KEOHE IN SAN FRANCISCO

Philip D. Estridge, who led IBM into the personal computer market building up a \$5bn business for the computer giant, has been reassigned to a corporate staff position. The move caps a series of changes in the operations of IBM's personal computer division, one of Entry Level Systems' division, where Mr Estridge was president.

Regarded as something of a maverick within IBM, Mr Estridge championed the "independent business unit" that became the Entry Level Systems division. Unlike other IBM operations, this division retained

almost autonomous powers until recently.

Now Entry Level Systems division appears to be losing much of its independence as it is reined into the traditional IBM organisational structure. Reportedly, the problems with some of the division's products, notably the PC Jr home computers, have led to a rethink of the division's strategy.

In the Entry Level Systems division, Mr Estridge will be replaced by William C. Lowe, formerly assistant group executive. Mr Lowe was involved in the original PC task force and drafted the original PC business plan.

Masaka Ogi in hot seat at Fujitsu America

BY OUR SAN FRANCISCO CORRESPONDENT

SITTING IN the hot seat is the new president of Fujitsu America, the U.S. subsidiary of the Japanese electronics and computer company, is Mr Masaka Ogi, who acknowledges that running a Japanese-owned company in the heart of Silicon Valley brings certain problems.

"We are keenly aware of the protectionist sentiment which is being discussed widely in the U.S. We decided to address this issue head on, by building Fujitsu America from the ground up as an American company. Our products are co-developed, manufactured and marketed as an integral part of our commitment to our partnership with the U.S.," he says.

A veteran of 33 years service with Fujitsu, Mr Ogi was vice-president in charge of international operations, based in Tokyo until taking up his new position at the turn of the

month. He has spent most of his career working on the telecommunications side of Fujitsu.

Mr Ogi has set an aggressive goal of increasing sales of the electronics manufacturing company by 40 per cent annually.

Most of Fujitsu America's sales stem from disk drive projects, but Mr Ogi would like to increase the percentage of sales derived from telecommunications.

"In the disk drive area, it's not easy to keep the very high growth rate," he explains.

But in entering the telecommunications field, the Japanese company must tread carefully.

"We face some trade restrictions," Mr Ogi accepts. He stresses Fujitsu's support for an opening of the Japanese telecommunications market to U.S. suppliers. "I personally believe that restrictions on telecommunications imports (to Japan) are unnecessary," says Mr Ogi.

BURMATEX PLC

Record results and profits in first year as a public company

RESULTS IN BRIEF
Year ended 30th November 1984
Sales 5000%
Sales 2,073 up 18%
Trading profit 1,423 up 17%
Earnings per share 12.22p up 10%

The strong position of Burmatax in the U.K. bonded carpet market, the improving sales of carpet tiles, the potential in exports, and our new tufting plant, supported by the strengthened management and sales teams give me confidence for the future."

J. B. Burrows
Chairman

The Annual General Meeting of the Company will be held at the Post House Hotel, Cirencester, on Friday the 22nd March.

Victoria Mills, The Green, Ossett, West Yorkshire. WES 9AN

BURMATEX

Norsk Hydro buys control of Dyno

By Fay Gjester in Oslo

NORSK HYDRO, the Norwegian industrial and energy group, is acquiring control of Dyno Industrier, the Norwegian plastics chemicals and explosives group, for Nkr 374m (\$46.2m).

Dyno will place new shares with Norsk Hydro, increasing the latter's stake in Dyno from about 26 per cent to 50.5 per cent, enabling Hydro to consolidate Dyno in the group account. Dyno will continue to operate under its own management.

Dyno has been considering a capital increase to help finance its planned purchase of the explosives division of Hercules, the U.S. chemicals group. Last year it bought another U.S. explosives company, Ircos. It aims to become one of the world's major producers of commercial explosives.

Another feature of the agreement is that Hydro will transfer its adhesives activities, and part of its explosives activities, to Dyno. At the same time the two will enter into long-term arrangements concerning the supply to Dyno of the key raw materials—urea and ammonium nitrate.

Norsk Hydro is a major producer of urea, and has its own adhesives plant in the Netherlands. Dyno is a large manufacturer of adhesives, and will take over Hydro's plant in the Netherlands.

Swedish steel group pulls out of the red

By David Brown in Stockholm

AVESTA, the troubled Swedish specialty steel group, has announced 1984 profit before extraordinary items and tax of SKr 75m (\$8.1m), a strong turnaround from the SKr 162m loss of the previous year.

However, the group expects costs associated with restructuring to depress results in the current year.

The directors have reiterated their call for an accelerated rationalisation programme of additional job cuts and shutdowns and has appointed a new president as part of a far-reaching top management shake-up.

Demand was strong through 1984, but the group was unable to lift prices to compensate for high dollar-denominated costs for raw materials. Net financial costs fell from SKr 320m to SKr 225m.

Avesta has had a troubled existence since its formation early last year as part of the broad restructuring of the Swedish stainless steel industry.

Statoil to acquire Exxon's oil operations in Sweden

BY KEVIN DONE, NORDIC CORRESPONDENT IN STOCKHOLM

STATOIL, the Norwegian state oil company, is to buy the Swedish oil and petrochemicals operations of Exxon in the U.S., in a deal worth up to Nkr 2.5bn (\$270m).

The takeover, which is still to be approved by the Swedish Government, is stated to be the largest foreign acquisition and one of the biggest business deals between Sweden and Norway.

It represents a major move by the Norwegian group to expand its downstream activities abroad in order to find new processing outlets for its rapidly growing North Sea oil and gas production.

Statoil has so far reached an agreement in principle to buy Exxon's ethylene plant in Grangemouth, near Gothenburg, as well as its complete oil marketing business in Sweden, including 420 service stations.

Exxon stressed last night that the disposal was not part of any wider plan to sell other

operations in Europe.

Exxon has around 12.5 per cent of the Swedish petrol market and some 9 per cent of the total Swedish market for oil products. Despite a period of fierce price wars in the Swedish market, it has remained the most profitable of market

petrochemicals in Sweden.

Not included in the chemicals

part of the acquisition is

Exxon's chemicals importing

activities with some SKr 450m

of total turnover.

The deal is the final move in

a far reaching restructuring of the Swedish petrochemicals industry.

Last year Norsk Hydro

completed the purchase of

KemalNobel's pvc plastics plants,

while Neste, the Finnish state

oil company bought up the poly-

ethylene plastics plants of

KemalNobel and Union Carbide of

the U.S. in deals worth more

than SKr 1bn.

of the new capacity will go to

supplying the Swedish market.

Norsk Hydro has around

12.5 per cent of the

Swedish oil market.

long been keen to enter the

Swedish market and last year

Norsk Hydro bought up Mobil's

oil marketing and retailing

operations in the country. The

deal also expands Statoil's base

petrochemicals in Sweden.

Not included in the chemicals

part of the acquisition is

Exxon's chemicals importing

activities with some SKr 450m

of total turnover.

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ethylene plastics plants of

KemalNobel and Union Carbide of

the U.S. in deals worth more

than SKr 1bn.

Societe Generale lifts dividend

By PAUL CHEESERIGHT IN BRUSSELS

SOCIETE GENERALE de Belgique, the largest of the Belgian industrial and financial holding groups, yesterday signalled a return to higher profits when it declared a net dividend of BFr 96 on shares existing before a capital increase in late 1983.

This declaration, for the 1984 financial year, means that Societe Generale is breaking out of the self-imposed limitation on dividend payments, settled at BFr 96 since 1981.

Shares issued in late 1983, to

coincide with a government incentive scheme to encourage bourse investment, attract a net dividend of BFr 107.5. Shares were issued at another time of capital increase in December 1984 with a payment until 1986 for a payment.

This state of share issues has not finished. Societe Generale said that it had no plans for any immediate capital increases, but next month it will seek the authorisation of shareholders to carry out capital increases over the next five years for a total of BFr 10bn (\$154m). The group has not yet announced its final profit figures, but it indicated at the halfway stage they would improve on 1983 returns. Then net profits were down to BFr 1.2bn from BFr 2.3bn in 1982.

DnC buys out partners in two consortium banks

By OUR OSLO CORRESPONDENT

DEN NORSKE Creditbank, Norway's largest commercial bank, reports record profits for 1984, and says it is buying out its partners in two overseas consortium banks, Ship Mortgage International Bank of Amsterdam and Nordic American Banking Corporation of New York.

DnC will become 100 per cent owner of the Amsterdam bank, taking over the stakes held by Midland Bank and Sweden's Skandinaviska Enskilda Banken.

In NABC, DnC will own 75 per cent with Svenska Handelsbanken retaining a 25 per cent stake. The deal makes DnC the first Norwegian bank to secure control of a U.S. subsidiary.

DnC group operating profits, before bad debt provisions, rose to Nkr 1.08bn (\$116.5m) from Nkr 843.6m in 1983. The figure

for operations in Norway was Nkr 806.1m, against Nkr 649.4m.

The bank is paying an unchanged 15 per cent dividend, and offering shareholders a one-off scrip issue.

The year's good result was

increased, however, in relation to total assets—1.51 per cent

from 1.58 per cent—while relative operating costs fell to 3.43

per cent from 3.57 per cent.

Profits from other activities

increased, however, in relation to total assets—1.51 per cent

from 1.58 per cent—while relative operating costs fell to 3.43

per cent from 3.57 per cent.

Foreign exchange and share

trading yielded profits of

Nkr 146.5m and Nkr 167.1m

respectively, compared with Nkr 74.4m and Nkr 42.9m in

1983.

Net financial costs fell to

Nkr 80.2m (\$8.7m) against

Nkr 95.1m (\$10.1m).

German plastic containers deal for PLM

By Our Stockholm Staff

PLM, the Swedish packaging group, has taken control of Rakus, the privately-owned West German manufacturer of plastic containers with annual sales of DM 60m (\$18.6m). Rakus is a producer of specialised multi-layer and polyester containers.

PLM's West German operations currently consist of a glass works near Hanover and a joint beverage can production venture in West Berlin with the U.S. Bally Corporation of the U.S. PLM declined to disclose the price it has paid for Rakus.

Fermenta, the biotechnology company, is to pay a dividend

it receives an exemption from a

government dividend freeze.

The company last week reported 1984 pre-tax profits of

Nkr 80.2m (\$8.7m) against

Nkr 51.1m (\$5.6m).

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March 1985



The Ministry of Finance of
The Kingdom of Thailand

U.S.\$85,000,000

Floating Rate Capital Notes due 2000
In accordance with the provisions of the Notes, notice is hereby given that the Rate of Interest for the first three months of the Interest Period ending on 30th September 1985 has been fixed at 10% per annum. The interest accruing for such three-month period will be U.S.\$127.78 in respect of the U.S.\$5,000 denomination and U.S.\$6,388.59 in respect of the U.S.\$250,000 denomination and will be payable, together with the interest for the remaining three months of the said Interest Period on 30th September 1985, against surrender of Coupon No. 2.
27th March 1985
Manufacturers Hanover Limited
Reference Agent

KLEINWORT BENSON FINANCE B.V.

US \$150,000,000 Floating Rate Notes 1996
(of which US \$100,000,000 have been issued as the initial Tranche)

KLEINWORT, BENSON, LONSDALE plc
(which was substituted for Kleinwort Benson Finance B.V. as the principal debtor on 15th March 1985)

For the six months 27th March 1985 to 27th September 1985, the Notes will carry a Rate of Interest of 10% per cent. per annum with a Coupon Amount of US \$517.50

CHEMICAL BANK INTERNATIONAL LIMITED
Agent Bank

U.S. \$75,000,000



Girozentrale und Bank
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(Incorporated in the Republic of Austria with limited liability)

Floating Rate Subordinated Notes Due 1991.
In accordance with the provisions of the Notes, notice is hereby given that for the three month Interest Period from 27th March, 1985 to 27th June, 1985 the Notes will carry an Interest Rate of 9½% per annum. The interest amount payable on the relevant Interest Payment Date which will be 27th June, 1985 is U.S. \$24.76 for each Note of U.S. \$1,000.

Credit Suisse First Boston Limited
Agent Bank

NOTICE OF EARLY REDEMPTION

Kingdom of Sweden



U.S.\$ 110,000,000

Floating Rate Notes Due November 1988

Notice is hereby given that in accordance with Clause 6(a) of the Terms and Conditions of the Notes, the Kingdom will redeem all of the outstanding Notes at their principal amount on 23rd May, 1985, when interest on the Notes will cease to accrue.
Repayment of principal will be made upon presentation of the Notes with all unmatured Coupons attached, at the Offices of any one of the Paying Agents mentioned thereon.
Accrued interest due 23rd May, 1985 will be paid in the normal manner against presentation of Coupon No. 9, on or after 23rd May, 1985.

Bankers Trust Company, London
Fiscal Agent

27th March, 1985

U.S. \$150,000,000

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Credit Suisse First Boston Limited
Agent Bank

\$500,000,000

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February 1985

Pakistan businessmen weigh up the Islamic banking system

BY JOHN ELLIOTT RECENTLY IN KARACHI

PAKISTAN is moving to the second major stage of its three-part adoption of Islamic banking next Monday, when all financing of individuals and private companies will become interest free. For the past three months, interest has been banned on all corporate accounts, and Pakistan and foreign banks have started to become accustomed to an innovation which is generally regarded as being politically irreversible.

"Mark-up is not the elimination of interest. They've merely changed the terms of interest, but everything is the same as before," says Professor Gafur Ahmad, a leader of the Jamaat Islami, a fundamentalist Islamic party. "The problem is that with mark-up the banks are not sharing the risk." The risk must be shared for the system to be Islamic. The banks must have a say in the businesses of their customers—which the businessmen will not like."

Bankers disagree

Bankers committed to the new system, however, do not agree. They say it is not essential for losses to be shared in an Islamic system. Mr M. R. Khan, chairman of the Banking Council, a Government organisation which covers the country's nationalised banks, says: "There is more onus on the banks to get their arrangements right and for users of funds to behave responsibly."

Banks no longer receive a "guaranteed rate of interest constantly ticking up" for as long as their funds are being used. They can only fix the mark-up once for a transaction and cannot charge a penal interest on bad debts. That needs more responsibility and skill, argues Mr Khan.

The State bank of Pakistan has issued a list of approved "modes of financing," the most important of which fall into three categories:

① Levying a service charge based on a bank's administrative costs.

② A mark-up on the value of goods handled.

③ Profit-and-loss sharing, known as Musharaka.

In addition, there are other forms, such as leasing, hire purchase, buy-back through staged repayments, rent sharing on housing related to capital costs, and a form of unit trust known as Mudaraba. None of these have been used much yet.

The list details the possible modes, designating for example

leasing, hire purchase or a charge on agricultural land for growing farm produce while

Mark-up is designated for plough and mitch cattle, but a broad choice of profit and loss sharing, mark-up, hire purchase and leasing is listed for dairy cattle and poultry. Personal advances are covered by hire purchase for consumer durables such as cars and household

goods.

BCCI has done two and Grindlays one. The country's five nationalised banks have been offering Musharakas since 1982, when forms of Islamic banking were introduced on a voluntary basis, but they have only done about 100.

"Profit and loss sharing Musharakas will not be a major form of financing for two or three years, although the banks will increasingly look for this sort of financing," says Mr M. Khan. Industrial units have recently been set up, with the World Bank help, in the nationalised banks to improve industrial expertise.

Two Muslim forms of unit trust have been issued so far. One of Rs 25m (\$1.6m) was floated last month by Mr Rafiq Habib, head of one of Karachi's fastest growing industrial groups, to test the market. This was three or four times over-subscribed, and Mr Habib says he hopes to raise about Rs 100m by this method over the next year for industrial investment.

Now the banks are getting ready for dealing with their depositors on an Islamic basis from July, with full profit and loss sharing. "A bank's profits, after deducting administrative costs, doubtful debts, and a management fee of up to 10 per cent will be distributed between the bank's equity holders and its depositors on a five-one basis," explains Mr Khan.

Grindlays enthusiastic

In the meantime, at least one bank is becoming something of an enthusiast—Grindlays is contemplating using its Pakistan experience to offer an Islamic system in one or two Middle East countries, such as Bahrain.

It would take funds from individuals on a profit and loss sharing basis and lend to customers on a mark-up basis. This would give the depositor the satisfaction of investing their money in an Islamic manner while providing security when the money is lent to its customer. It is a formula which meets a banker's cautious approach to his trade, even if it may not please all Muslim fundamentalists in Pakistan.

UK COMPANY NEWS

Reckitt & Colman up 20% as sales pass £1bn mark

Reckitt & Colman, the household products and goods group, yesterday reported a near 20 per cent increase from £88.7m to £106.4m in taxable profits for 1984.

Turnover increased by 14.6 per cent to £1.12bn, despite a strong competition and a further planned increase in marketing expenditure in support of major brands.

Continuing progress made with the household product development programmes in the U.S. was "particularly encouraging," say the directors.

The final dividend, as promised last October when £106.4m was released for one-for-one rights issue, is being raised from 7.8p to 8.8p, making a total 14.3p against 12.4p.

This is covered nearly three-fold by stated earnings per share of 4.18p compared with 36.85p. The tax charge was £45.88m (£28m).

Normal business operations resulted in a net outflow of only 10.8m despite the acquisitions in Australia and Brazil for £1.6m and the investment in modernising production and warehousing facilities at Norwich in the UK and in South Africa which together amounted to £1.7m.

At the end of the year agreement had been reached to acquire the Avicwick division of Ciba Geigy AG for which shareholders' approval was obtained.

Last year, Reckitt made an abortive attempt to take over Nicholas Kiwi, the Australian



Sir James Cleverton, chairman of Reckitt & Colman

household products and drug group.

Reckitt's net financial position improved by £54.4m from net borrowings of £7.2m at the end of 1983 to a net in hand position of £47.2m.

This reflects the rights issue less the cost of Nicholas Kiwi shares, which were disposed of at a profit and the proceeds received after the year end.

Trading profits increased 10.2 per cent to £105.85m with the headline marketing spend offset by sustained improvements in productivity.

Movements in exchange rates, excluding Latin America, had

little effect on the comparison of pre-tax profits as the greater cost in sterling terms of the U.S. Household programme and the weak South African render more than offset gains from the Australian dollar.

An analysis of pre-tax profit by products shows (in £m): Household and toiletries £44.81 (35.10); Food and drink £22.30 (22.10); Pharmaceutical £24.40 (20.87); Colours £5.33 (5.56); Industrial cleaning £2.27 (2.14); leisure £2.84 (5.03); and corporate interests and expenses 20.69 (3.80). See Lex

Iceland Foods exceeds forecast

BETTER THAN forecast taxable profits were attained in 1984 by Iceland Foods Holdings, one of last year's newcomers to the Stock Exchange.

Mr Malcolm Walker, the chairman, reports that sales increased 40.4 per cent to £95.24m and pre-tax profits rose by over 60 per cent from £1.82m to £2.97m, which compares with the full listing prospective forecast of £2.8m.

The company, which operates frozen food centres, has been built up by Mr Walker and Mr Peter Hincliffe, who worked together as trainee managers in P. W. Woolworth and decided in 1970 to rent a shop in Oswestry, Shropshire, to sell loose frozen foods.

Sixteen new stores were opened in 1984, which included six relocations and completed major refits on six former St Catherine sites.

"Our new frozen and microwave division established itself during the year, starting in only 14 outlets and finishing with representation in 42 branches," says Mr Walker.

"However, 1984 is history," he says and adds, "we have an aggressive site acquisition programme under way; three stores

have opened in 1985 to date, with four more currently being fitted out and several more in the pipeline.

"We will continue to develop our product development and expect to see a further increase in the percentage of our business coming from our own label ranges," he says.

Regarding prospects, he says, "Trading in 1985 to date is satisfactory and results are ahead of last year. However, we expect further and the pattern of store openings meant that on unusually high proportion of 1984's profit was earned in the first half, and we anticipate a more normal pattern in the current year."

As stated in the prospectus, there is no ordinary dividend, earnings per share were 19.99p (12.88p).

Profits were struck after interest payable of £28.000 (£368.000) and were subject to tax of £18.000 (£97.000)—there was an extraordinary credit this time of £368.000, relating to the offer for sale in October.

• comment
These first preliminary figures from Iceland as a public com-

Reorganisation starts to benefit Burgess Products

REFLECTING some of the action taken to reorganise the group, pre-tax profits of Burgess Products (Holdings), maker of precision electrical and electronic components, rose 24 per cent in 1984, from £214.000 to £261.000 for the half-year to January 26, 1985. Turnover amounted to £10.39m, against £12.01m.

The comparative figures included discontinued activities; representing turnover of £2.61m and trading losses of £10.000 from Burgess Architectural Products Ltd, Burgess Teal, two wholly owned subsidiaries sold since January 1984.

Mr Bob Morton, the chairman, says trading in the second half of the current year is continuing at the same rate as the first six months. Outcome for the full year, however, will depend upon external factors including UK interest rates.

Any substantial weakening of the dollar will have an adverse effect on trading in the U.S. and Canada, he adds.

Although interest payable increased from £198.000 to £239.000, reflecting higher borrowings prior to the company's

Pressac dives to £411,000

Pressac Holdings, electro-component manufacturer and precision engineer, suffered a sharp decline in pre-tax profits from £1m to £410,938 for the six months to January 31 1985. Stated earnings per 250 share were 6.8p (4.3p as adjusted for discontinued activities and larger capital). An interim dividend of 0.5p net is declared—a total of 2p per share increased capital had already been forecast.

Group trading profits more than doubled at £30.000 (£12.000). The weakness in the growth sectors in the precision electrical and electronic components activities of the group, where profits rose from £559.000 to £839.000.

Acoustical and other engineering products made a £1.000 profit (£42.000 loss), but suffered from the continuing severe price competition in the replacement silencer market.

Mr Morton reports that a new silencer, Long Life Extra, which is guaranteed for the life of ownership of the motor vehicle, has recently been well received by both the motor trade and consumer.

Croda 1984 results

	1984 £'000	1983 £'000
Unaudited	383,485	341,128
Turnover	20,046	17,574
Profit before taxation	11,511	9,961
Profit after taxation	2,989	2,330
Extraordinary items less taxation	8,297	7,530
Attributable profit	4.00	4.00
Ordinary dividends (net)	4.00	4.00
Proposed final dividend (payable 1 July 1985)	7.00	7.00
Making total for the year	7.00	7.00

Copies of Report and Accounts available on and after 29 April 1985 from the Secretary

Croda International Plc
Cockwell Hall, Snaith, Goole,
North Humberside DN14 9AA

Croda

Texas Homecare group lifts profit 54%

Home Charm, owner of the Texas Homecare DIY chain of stores and similar retail outlets, increased pre-tax profits by 53.8 per cent to £10.63m, against £7.05m in the year to December 31, 1984.

Turnover was up 34.2 per cent at £183.11m (£136.44m) and basic earnings per share rose to 13.2p (8.5p). A dividend of 1.75p (1.25p) is being recommended, making 2.75p (2p) for the full year.

The group's retail selling area increased by 35 per cent to 2.61m sq ft.

The chairman reports that despite poor weather during the first few weeks of the current year, sales are up 24 per cent on the same period last year largely because of the number of new stores.

He looks forward to 1985 being another record year for the group.

• comment

An impressive array of figures, based upon rapid physical expansion and market share performance. Retail selling areas have been increased by 35 per cent, including the Unit Sales acquisition, and with a 13 per cent sales improvement on a like-for-like basis, group turnover is up 34.2 per cent. Tight control of overheads has turned a small improvement in gross margins into a 0.3 point increase at the net trading level, pushing pre-tax profits up 54 per cent. This year could provide more of the same, though the profit growth will be something more modest.

Pre-tax profits for the six months to end-December 1984 rose from £21.81m to £26.02m and took contributions from recent acquisitions. For the corresponding period including the now-disposed of building material activities.

The interim dividend is being stepped up by 0.5p to 4p net per 10p share, an increase of some 14 per cent.

Future advanced to 1985 from £18.5m to £25.84m. The business division performed well and exceeded its budgeted completions. The other divisions also performed well with the exception of part of the services sector

Delta shows 44% advance with electrical side leading the way

With growth coming more from abroad, the Delta Group had pushed up its profits 44 per cent in 1984, from £31.8m to £45.7m. Shareholders receive a final dividend of 2.68p to give them a net total of 4.5p, against 3.75p last time.

By area, the analysis was UK £22.1m (£18.7m) and SE Asia £12.7m (£10.7m); Africa £2.6m (£2.6m); MEA £2.6m (£2.6m); and South America £2.5m (£2.3m) and Western Europe £2.4m (£2.3m) and loss £0.7m (profit £1.3m).

In the current year the group has made "an encouraging start" and the directors look for a period of further progress. Subject to the usual proviso, they are expecting growth in profits.

Turnover in the year ended December 26, 1984 rose from £212.8m to £260.2m and profit from electrical equipment contributed £261.7m (£220.3m) to that and £21.7m (£18.3m) to pre-tax profit.

Fluid controls £155m (£150m) and £23.4m (£10.6m), metals £179m (£27.2m) and leisure £124m (£10.7m) and industrial services £28.8m (£6.4m).

There has been a further strengthening of the balance sheet. The debt/equity ratio improved to 0.34:1.

• comment

With pre-tax profits up per cent—right at the top end of analysts' forecasts—Delta Group has shown how to make money in a market where sales are flat.

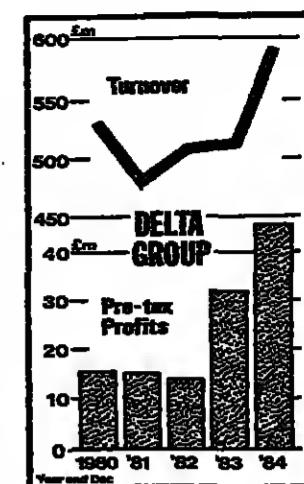
Production costs have been parried as much through investment as redundancies and the £4.5m taken above the line for reorganisation should not have to be repeated in future years.

In electrical equipment, the start-up report shows the cable division recovered strongly after sever pressure on prices in 1983, and Switchgear and Accessories division made further progress.

Results in metals and industrial services showed a significant improvement.

After tax £14.3m (£12.5m) and net attributable £1.3m (£0.75m), the pre-tax profit £20.9m (£18.6m) for earnings of 20.9p (18.6p) per share.

On that basis £51m for the year does not seem unrealistic—yet the shares, up 3.5p still stand on a very modest prospective p/e of around 5. The fault lies mainly with the company.



At 4.5p for the year, the dividend is still substantially below the 1970's payout and leaves the shares, which used to be bought for their income, on a meagre historic yield of 4.3 per cent.

It is the market's expectation, particularly since Delta's growth in these mature fields must soon be by acquisition. The fear of a cash call may prove a temporary damper on the shares.

Beazer confident after first half jump

C. H. Beazer (Holdings), property developer and contractor, pushed its first half profits up by 30 per cent and looks with confidence to the outcome for the full year.

The group is continuing to trade satisfactorily and housing completions are on target despite increases in interest rates.

Pre-tax profits for the six months to end-December 1984 rose from £4.81m to £6.82m and took contributions from recent acquisitions. For the corresponding period including the now-disposed of building material activities.

The interim dividend is being stepped up by 0.5p to 4p net per 10p share, an increase of some 14 per cent.

Future advanced to 1985 from £6.9m to £8.54m. The business division performed well and exceeded its budgeted completions. The other divisions also performed well with the exception of part of the services sector

keeping the group busy. Having failed with Bath and Portland which lapsed in the face of a higher bid from Consolidated Gold Fields, Beazer received consideration of some off-shore developments.

For the period accounted for £12.2m (£15.8m) and minorities for £143.000 (£10.000). Available profits amounted to 42.16p (£3.15m), equal to 30.2p (£18.5p) per share. Pre-tax profits for the 1983-84 year totalled £11.28m.

• comment

Expectations of good news flowing from Beazer's ingestion of William Leech (acquired in January) are leading analysts to see some 15.5p above the year end. Lower tax charges in the interim rate was 35 per cent, and could see earnings per share rising to 41p, for a prospective multiple of 10 at 40p. The acquisition trail is taken to its overhead burden.

Preliminary announcement of results for 1984
British Aerospace

PUBLIC LIMITED COMPANY

†Results for 1984		1984 £'m	1983 £'m
Turnover		2,468	2,300
Trading profit		166	112*
Launching costs written off	(51)	(43)	
Net interest receivable	4	12	
Profit before taxation	120	82	
Profit after taxation	108	82	
Earnings per share (net basis)	54.0p	41.1p	
Dividends per share (net)	13.65p	9.10p	

*Extract from preliminary announcement of results for 1984 based on audited accounts for the

UK COMPANY NEWS

BAe prefacing share sell-off with 46% rise

BY MICHAEL DONNE, AEROSPACE CORRESPONDENT

British Aerospace, the aircraft, missile and space manufacturer which is planning a major share issue this spring, alongside the Government's sale of its own remaining 43 per cent stake in the group, earned pre-tax profits of £190.2m in 1984, against £82.3m in 1983. The result, a rise of 46 per cent, was in line with market expectations. The share closed 11p higher at 385p yesterday.

Sir Austin Pearce, chairman, announcing the figures in London yesterday, confirmed that the prospects for the share sale and the group's own offer would be issued soon.

The BAe accounts show that sales in 1984 amounted to nearly £2.7bn, against £2.3bn in 1983, generating trading profits of £166.2m against £112m. After taking account of launching costs written off, profits before interest were £15.1m against £9.4m.

An analysis of the group's trading performance shows that the only section of its activities which did not make a profit in



Senior executives of British Aerospace, (left to right): Sir Raymond Lygo, managing director; Sir Austin Pearce, chairman; Mr Bernard Friend, director of finance. They feel that the Government could well tell BAe why it lost the contract for the next RAF basic trainer.

1984 was space, which incurred a loss of £15.2m on sales of £109.5m. In 1983, space incurred a loss of £14.2m on sales of £104.9m (£80.3m) respectively—

while both the military aircraft and guided weapons sectors showed increased trading profits of £114.3m (£104.7m) and £104.9m (£80.3m) respectively—the civil aircraft group had profit of £7.5m on sales of £572m. This compared with a profit of £13.6m on sales of £434.6m in 1983.

During the year, BAe wrote off launching costs of £1.1m (£42.6m in 1983). The increase was largely due to the Advanced Turbofan (ATF) engine, which was launched in 1984.

The directors have proposed a final dividend of 8.4p per share, up from 5.9p, which boosts the total by 46 per cent to £13.65p. Stated earnings per 50p share were 54p (41.1p) on a net basis.

Sir Austin said that the money BAe would raise in the forthcoming share issue would be needed in 1986-87 for a wide variety of programmes.

It was not needed immediately, but the group had been advised that the best time to make such an issue was at the same time the Government itself sold off its remaining stake in the airline.

Sir Austin welcomed the Government's decision to sell its remaining stake in BAe. It would mean that the company would be entirely publicly owned, instead of being half-and-half as at present, and that could only be good for the group in the long term.

See Lex

Smith & Nephew up 24% as margins rise

BY DOMINIC LAWSON

Enterprise Oil has outstripped City expectations for both its inaugural full-year profits and dividend payout since privatisation.

The former North Sea oil production arm of the British Gas Corporation yesterday unveiled net profits of £52.6m, compared with the prospectus forecast last June of £47m and £30.8m for the previous eight month period.

Shareholders will receive a dividend of 8p per share, against the offer for a 40p pledge of 7p. Two reasons were behind the profits surge: the rapid appreciation of the dollar against the pound, and an earlier than expected start in production from the North Sea Burton Oilfield.

Mr John Walmsley, finance director, said yesterday that the prospectus forecast had been based on an exchange rate of \$1.45 to the pound, but the average rate over the year was \$1.30.

All of Enterprise's profits, with the exception of interest receivable, are originally denominated in dollars, the currency in which crude oil is bought and sold internationally. At the pre-tax level, profits came to £138.5m. Capital expenditure was £23m with exploration, accounting, for £29.7m. Cash and short term investments at the year end stood at £108.5m and currently amount to £130m.

Enterprise is known to be on the lookout for acquisitions, for which it is prepared to commit a large proportion of its considerable liquid resources.

Mr Graham Hearne, chief executive, said: "We are seeking more development prospects. There is every prospect that

within the UK independent oil sector the next few years will bring opportunities for growth which Enterprise is well positioned to exploit."

Most stock market speculation now centres on Trident as a target since it has the development prospects that Enterprise offers.

Enterprise has high hopes for two future developments out of its existing portfolio. The drilling on the Arbroath-North Sea oil discovery has been successful, and it is thought that

Enterprise Oil

it could contain up to 100m barrels recoverable oil, which Enterprise has a 31 per cent stake.

The other is a gas discovery in North Sea block 43/30.

Last year Enterprise produced 32,000 barrels a day (b/d) of oil. Production is expected to rise to about 35,000 b/d by the end of the decade.

The production profile, however, should be flatter than predicted in the prospectus, since the Beryl "B" field is likely to have a slower than anticipated build-up in production.

Enterprise is considering setting up its own oil trading operation, following the recent announcement by the Government that the British National Oil Corporation is to be abolished.

At present the domed shale oil trader handles Enterprise's production. Enterprise said yesterday that it had accelerated a review of its marketing arrangements.

See Lex

Shell chief warns about downstream loss-makers

BY DOMINIC LAWSON

SHELL UK made a loss last year in its refining and marketing operations. It was the first loss by the company in nearly 10 years. Mr Howard Raisman, chairman, said yesterday that the company would be able to turn around its downstream activities in the rest of this year.

The Stock Exchange suspension was carried out at both companies' request pending an announcement and following a 21p rise in the UBM share price on Monday. UBM was suspended at 160p—a price which values the company at £94.5m—while Norcross was suspended at 160p.

The Stock Exchange said yesterday it was keeping a close watch on the situation though it would not take a decision on whether to investigate UBM's price rise until the announcement was made.

When Norcross first launched its bid, its shares were trading at 142p while UBM was at 99p. The share prices of the two companies have since moved much closer to parity.

A renewed bid for UBM—possibly on the basis of one Norcross share for one UBM share—would considerably more highly than the better performing shares in the building sector, analysts said. A share offer would lead to a dilution of Norcross's earnings per share.

"The UBM share price is signalling a bid, but it does not make sense," said one analyst. In October, UBM announced a 50 per cent rise in pre-tax profits to £8.6m in the six months ended April 30, 1984, on turnover which rose 60 per cent to £150m. A few days later, UBM sold its staffolding business to British Electric Tractor for £5.5m.

In December, Norcross disclosed that setbacks in its heavy engineering companies and losses at Criftall Construction had led to a fall in operating profits and to practically unchanged pre-tax profits of £1.1m in the six months ended September 30. Turnover rose 9 per cent to £180m.

See Lex

UBM and Norcross suspended

By Charles Batchelor

THE Stock Exchange yesterday suspended trading in the shares of Norcross and UBM in a move which prompted speculation that Norcross plans to renew its take-over bid for UBM which lapsed 17 months ago.

Market opinion was not unanimous, however, and a number of Norcross took the view that Norcross may be planning to place the 34.5 per cent holding it acquired in UBM during the course of the bid.

Norcross, a building materials group which has interests in H. and R. Johnson Tiles and Criftall Windows, bid £54m for UBM, a builders' merchant in the UK and the US.

The drinks dispense business has made further progress, and UBM is helping to boost its market share in the UK and the US. The drinks dispense business has made further progress, and UBM is helping to boost its market share in the UK and the US.

It increased its offer to nearly 77.6m a month later but acknowledged the defeat of its bid in October 1983, after gaining acceptance from the holders of only 6.6 per cent of the shares apart from its own 34.5 per cent stake.

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See Lex

Turner & Newall

Turner & Newall has sold the oilfield division of its subsidiary TAC Construction Materials to Turner Roadside Holdings for £5m. The business, located at Alfreton in Derbyshire, produces autoclaved concrete blocks.

DIVIDENDS ANNOUNCED

	Current payment	Corre- tional spending div.	Total for last year
American Trust	1.85	May 16	2.9
Arthur Bell	int. 1	June 3	4.6
C. H. Beazer	int. 4	May 20	3.5
Bermrose	1	May 24	6.6
Booths McConnel	6.25	—	2.65
Brent Chemicals	2.75	—	2.3
Brown & Root	0.54	—	0.8
British Aerospace	6.4	—	5.6
Burgess Products	0.51	May 10	0.5
W. Canning	2.47	July 1	2
City of Aberdeen	6.01	May 2	3.56*
Croda Int'l	4	July 1	7
Delta Group	2.68	July 1	1.93
Dufay Bituminous	0.8	May 15	1.6
Enterprise Oil	5	May 24	8**
Equity and Law	4.6	July 1	3.51†
Gabcof	int. 0.91	—	—
Carlton	2	July 1	1.5
HB Electronic	0.75	May 25	0.7
Home Charm	1.75	May 24	1.25
IMI	2.5	May 24	2.5
Johnson Cleaners seclnt	15.24	—	4.42
Manson Finance	int. 0.63	May 17	0.8
Marine Ventures	int. 0.1	May 24	1.05
Prestige	int. 0.7	May 22	0.7
Reckitt & Colman	8.81	—	7.35
Ricardo Engineers	int. 0.88	April 12	0.58
Rohm Group	8.41	—	2.5
Smith and Nephew	3.15	May 21	2.58*
Standard Chartered	19	May 17	18.5
Trade Indemnity	4.68	—	5.14
Trident Computer	int. 0.8	—	0.6
Dividends shown pence per share net except where otherwise stated.			12.75†
* Equivalent after allowing for scrip issue.			4.55
** As forecast at the time of co's introduction to USM in November 1984, 18 months.			2.75*
† As forecast in June 1984 prospectus.			28.5
‡ Adjusted for subdivision.			28
£ Irish pence throughout.			7.5
Partly to reduce disparity.			1.6

* Equivalent after allowing for scrip issue. † On capital increased by rights and/or acquisition issues. ‡ USM stock. § Unquoted stock. ¶ As forecast at the time of co's introduction to USM in November 1984, 18 months. ** Compared with 7p forecast in June 1984 prospectus. † Adjusted for subdivision. ‡ Irish pence throughout. || Partly to reduce disparity.

Enterprise outstrips City forecasts and surges to £63m

BY DOMINIC LAWSON

Enterprise Oil has outstripped City expectations for both its inaugural full-year profits and dividend payout since privatisation.

The former North Sea oil production arm of the British Gas Corporation yesterday unveiled net profits of £52.6m, compared with the prospectus forecast last June of £47m and £30.8m for the previous eight month period.

Shareholders will receive a dividend of 8p per share, against the offer for a 40p pledge of 7p.

Two reasons were behind the profits surge: the rapid appreciation of the dollar against the pound, and an earlier than expected start in production from the North Sea Burton Oilfield.

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Shareholders will receive a dividend of

UK COMPANY NEWS

Standard Chartered ahead despite higher provision

Standard Chartered reports pre-tax profits of £290.3m for 1984, an 8 per cent increase over the £268.1m achieved in 1983. This figure includes associated company profits, and was struck after a rise of £20m in provisions to £150m against bad and doubtful debts, of which £51m relates to general provisions.

The board is recommending a final 16p (18.5p) dividend, to bring the total for the year to an increased 28.5p (26p). Stated net earnings per £1 share fall by 16 per cent to 84.4p (77.1p).

Lord Barber, chairman, says that the directors have continued to take a cautious view of asset quality in all major trading areas, and have considered it prudent to establish a high level of specific provisions.

This is in addition to nearly doubling the allocation for general provisions, which now stands at £200m (£131m), he says.

Operating results for 1984 reflect "excellent" performances from South Africa, mainly in the commercial banking business, and from Union Bank in California, Lord Barber says. However, the South African contribution to group results was dimmed by the 23 per cent depreciation of the rand against sterling.

Hong Kong operations recovered strongly from the property related problems experienced in 1983. Malaysia recorded a "satisfactory" increase in profits, although Singapore's results were dimmed by the fall in oil prices.



Lord Barber, chairman of Standard Chartered

The group's banking activities in tropical Africa again achieved satisfactory overall results, he says.

Profits before tax, some £170.6m (£151.7m) of which were achieved in the second half, include non-recurring losses of £15m relating to the write-down of certain South East Asia investments, a realignment of the U.S. branches, bad debt provisions to generally accepted U.S. practices, and a 50 per cent provision on the Johnson Matthey bankers' indemnity fund.

Increased interest charges on subordinated loan capital accounted for £75.3m (£29.7m). A higher tax charge of £150m (£10.9m) is due primarily to

tax changes in the UK and South Africa, Lord Barber says. Profits after tax and minorities of £40.2m (£45.1m), net to £200m against £114m.

Total assets employed increased by £5.6bn during the year, to £24.5bn. About £2.3bn of the increase relates to the effect of currency movements, the chairman says.

• comment

Hard as it tries, Standard Chartered does not find it easy to win friends in the City. It is difficult to convince the market of the merits of such a widely, sometimes thinly, spread group with the big presence in South Africa. Yet Standard is making progress, particularly in the more highly-rated markets—last year, for example, the attributable earnings from South Africa equalled those from South Africa for the first time, notwithstanding a significant South African advance in trading conditions.

The UK Standard's advance is much slower—given that the possibility of bidding for the Royal Bank of Scotland is now very remote, the bank is struggling to make a real impression on the City. Turning to the bank's shares, the book value last year was no luxury—without the funds the free cashflow ratio would be well below the 4.8 per cent shown. On balance, the shares, up 5p to 465p, reflect an unduly pessimistic view of Standard's prospects—but at any rate it yields 2 points less than Midland.

Interest charges fell from £12.8m to £9.8m. Borrowings were £6m lower at £282m and Hoechst said it had benefited from the low interest rates. Shareholders' funds have risen to 25 per cent of the total capital employed of £287m.

FKI Electricals has launched a rights issue to raise £7m after expenses, housebuilder Berkeley Group is asking its shareholders for £3.5m while Irish exploration company, Oliver Prospectors and Mining, announced a rights issue and placing to raise a total of £1.975m.

The current year has got off to a good start in the first quarter, but sales are not expected to be materially higher than last year's

Berger aids Hoechst to profits rise of 161%

Hoechst UK, the British arm of German chemicals giant Hoechst A.G., increased its pre-tax profit by 161 per cent to £11.5m. The improvement was chiefly due to a doubling of profits in the Berger paint division and to a £1m fall in interest charges.

Group turnover was up 9 per cent to £570.6m. Turnover in the Americas was up 13 per cent to £223m, but profits were static at \$1.2m.

Hoechst says pharmaceuticals

—with turnover of about £18m in the UK—continued to suffer from inadequate margins. It said recent Government moves to ban the use of certain drugs had contributed to Hoechst's decision to postpone investment on drugs research.

As for those divisions that are under-performing, he says: "we are determined to raise their performance to satisfactory levels and if this proves impossible, then the division will either be sold or closed down."

The chairman reports that of the group's major subsidiaries, Croda Polymers International stood out by continuing the excellent progress of the past few years, despite the miners' strike seriously affecting the results of the application chemicals division. This subsidiary group, which operates in the field of specialty chemicals, produced

Croda up 14% but dividend pegged



Sir Frederick Wood, chairman of Croda

some 60 per cent of total profits at £12.2m (£10.16m).

While Croda Polymers International—profits more than doubled from £1.18m to £2.78m. Good results were produced in the oil refinery division in Australia, New Zealand and the U.S., continued depressed conditions in the UK printing inks industry resulted in a loss in that business area.

Furthermore, there were disappointing results in the paints division in the second six months, brought about by a

sharply reduced level of business and very competitive conditions in the UK general paint market. The adhesives division had another successful year.

• comment

Croda's 14 per cent pre-tax improvement in 1984 must rank among the least inspiring in the chemical industry in general, year, when most European chemical companies could take a free ride on the dollar and demand was strong. Offsetting this fair degree of resistance to a falling dollar—and the normal demand cycle—could be advanced as consolations for Croda shareholders in the current year. So too can the dividend, which is continuing to pay the price. Croda's annual defence against Burton, at 13p, the yield is almost 8 per cent, and despite the sale of some substantial businesses since 1983, Croda's cash flow still looks reasonable.

There are indeed one or two positive factors for 1985, including the elimination of some losses on companies sold and the absence of the miners' strike, while the Cromano consumer division might—very likely—be in better shape than in 1984. Spender than last year. But the growth of the trading division's balance sheet, for no appreciable return, raises a question or two, in addition to the obvious problems of oil-refining.

Three companies call on holders for £12m

THREE COMPANIES announced plans yesterday to raise a total of £12.3m from investors through rights issues and a small placing of shares.

FKI Electricals has launched a rights issue to raise £7m after expenses, housebuilder Berkeley Group is asking its shareholders for £3.5m while Irish exploration company, Oliver Prospectors and Mining, announced a rights issue and placing to raise a total of £1.975m.

The current year has got off to a good start in the first quarter, but sales are not expected to be materially higher than last year's

forecast of £3.3m (£2.25m) pre-tax for the year ended this week. The directors are also forecasting a final dividend of 0.275p per share, making a total of 0.5p, an increase of 18 per cent.

The company has more than trebled profits since 1981-82 thanks to organic growth and a successful series of acquisitions. Since it came to market in September 1982 FKI has spent £1m on acquisitions, only one turning to raise £0.5m to call in the shape of a £2m convertible preference stock placing in 1983.

The directors are asking for money now to "provide greater

flexibility in considering potential acquisitions for cash."

The issue is underwritten by N. M. Rothschild and brokers Panmure Gordon.

Berkeley's cash call comes as a one-for-four rights at 142p per share. As with FKI, the directors of Berkeley are raising money now to fund possible acquisitions.

The directors are forecasting that profits for the year ended April 30, 1985 will not be less than £2.15m compared with £1.53m.

The issue has been underwritten by County Bank and brokers O'Brien and Tolle are involved with the placing.

Equity & Law profit rises 26%

Equity & Law Life Assurance is increasing its dividend payout for 1984 by 24.4 per cent from 4.5p to 5.6p, after a 26 per cent rise in the total long-term business profits revealed by the end-year valuation.

The valuation showed a surplus of £90.3m of which a net £3.35m was transferred to the shareholders' profit and loss account. Policyholders have already received their share of the profit in the form of higher bonus allocations.

Shareholders' profits for 1984 are £1.06m higher than in 1983. Some £230,000 of this increase arose from the higher terminal bonus rates paid in 1984 and a further £102,000 came from changes in the basis used by the actuary in his valuation.

Other earnings in the profit and loss account amount to £220.000 net and follow its insurance practice. Equity and Law has effectively paid out earnings to shareholders as dividends.

Mr P. Cox, chairman, points out that dividend payments over

the past five years have risen by more than 20 per cent a year and the comparative steadiness of dividend increases—a feature not commonly found in the stock market—is given to the high rating given by the market to the company's shares.

Premium income last year rose by more than 20 per cent from £217m to £262m, while investment income climbed 18 per cent from £122m to £144m. Claims and expenses were nearly 15 per cent up at £204m against £178m. Total funds of the company rose by over £400m from £2,050m to £2,51bn during the year.

The company invested £23m of new money on its main life fund in UK gilts and a further £21m in other fixed-interest securities. Some £14m was invested in UK equities and £1m in overseas equities. There was no investment in UK property and only £3m in overseas property.

At the end of the year, UK gilts amounted to £493m, UK equities £553m, overseas equities £1.15m and UK property £313m.

regulatory changes had enabled County Bank to further its objective of creating an integrated investment bank, with links now established with stockbrokers Fielding Newsome-Smith and stockjobbers Bishop-Bishop. He said the new company, County Holdings, had been formed as holding company for the group.

Total assets at the end of the year stood at £1.77bn, up from £1.5bn in 1983. Total value of all funds managed or advised rose from £4.7bn to £6bn.

Mr Villiers said that recent

County Bank profit up to £14m

County Bank, the merchant banking arm of National Westminster Bank, increased its pre-tax profits in 1984 by 25 per cent to £4.1m.

Mr Charles Villiers, chairman and chief executive, said the after tax profits were up 80 per cent, to £3.43m on last year. He stated that the bank also held an additional £51m or so in unrealised capital gains, mainly on the development capital side.

Mr Villiers added that the bank had increased its provision

Suter discloses profits shortfall at Francis

BY ALEXANDER NICOLL

Suter, the engineering distribution and packaging group disclosed yesterday that Francis Industries, the gearbox components and metal containers maker, it acquired last year for £15.5m, did not meet a revised profit forecast made during the build-up.

In listing particulars covering Suter's agreed 27.95m takeover of founder-given Lake & Elliott, Suter and Francis achieved pre-tax profits of £1.57m in 1984.

The unaudited figure compared with a forecast of not less than £2m made by Francis on November 9, 1984. The final profit will be settled down from £2.35m and the shortfall from the original estimate caused Suter to withdraw its £1.5m agreed bid and reach final agreement on £1.5m. The agreements ended a long-running battle for control.

The final profit forecast assumed that Francis's opera-

Octopus to sell Websters shops to W H Smith

By Alexander Nicoll

Octopus Publishing Group is selling the 15 retail bookshops and school book division of Websters, the book distribution group it acquired last December, to W. H. Smith for £10m cash.

Mr Paul Hamlyn, chairman of Octopus, said his company had been principally interested in the Bookwise division of Websters, which has about 25 per cent of the UK wholesale market for paperback books. He saw Bookwise as an efficient marketing avenue for Octopus books.

We are not retailers," he said. Octopus was therefore selling Websters Bookshops, a chain of specialist booksellers outside London, and Books for Students, which supplies 6,000 schools and 145 libraries.

W. H. Smith sees a fit between the bookshops and its 18-store Bowes and Bowes chain. Purchase of the school book division will take the retailing group into a new market. It hopes to offer some of its other merchandise, such as stationery and calculators, to schools.

Under the agreement between Octopus and W. H. Smith, Books for Students will guarantee to continue buying books from Bookwise for three years and Websters Bookshops for one year.

The subsidiaries being sold made profits of £500,000 before tax and interest, in 1983.

* * *

Taxable profits of Dafydd Brianistic fell from £568,000 to £506,000 in 1984. The group, engaged in the manufacture and application of surface coatings, had turnover from £15.3m to £17.75m.

The final dividend is halved to 0.8p making a total of 1.8p (2.8p). Earnings per 10p share are shown at 2.03p (2.2p).

The current year has started well. The directors look forward to a year of progress, with results more in keeping with the level of increased activity.

IN BRIEF

Mansons Finance Trust maintained its momentum at the interim stage, with taxable profits surging ahead by 58 per cent from £404,000 to £644,000 in the six months to December 31, 1984.

The interim dividend is raised from 0.5p to 0.625p, an increase of 25 per cent. Mansons has close

moved ahead by 21 per cent from £5.06m to £6.12m.

The interim dividend is unchanged at 0.875p.

After higher tax of £371,000 (£203,000), attributable profits came out at £480,000 (£349,000). Earnings per share are shown at 2.03p (2.2p).

After minority interests of £3,000 (£5,000), attributable profits came out at £358,000 (£244,000).

Earnings per 20p ordinary share are shown at 1.2p (1.1p).

* * *

Trade profits at Ricardo Consulting Engineers were lifted by 45 per cent from £552,000 to £801,000 in the half year to December 31, 1984. Turnover

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UK COMPANY NEWS

Johnson meets defence forecast

Johnson Group Cleaners achieved marginally increased pre-tax profits of £5.37m in 1984, compared with £5.3m previously, after allowing for a heavier interest charge up from £549,000 to £1.6m, and an exchange gain of £555,000.

Turnover rose from £56.9m to £57.3m, leaving a trading profit of £7.4m (£6.4m) for the 52 weeks to December 29 (33 weeks).

There is a second interim dividend of 15.4p (9.4p), making an 18.6p (12.4p) total for the year.

The results and dividend are as predicted last December during the unsuccessful bid by Nottingham Manufacturing. Stated net earnings per 25p share emerged slightly higher at 36.5p (36.7p).

Mr John Crockett, group chairman, reiterates that "the dry cleaning business suffered during the exceptionally long and hot spring and summer, and in certain areas from the miners' strike. There was a recovery later, he says, but it did not make up for the depressed summer trade. In the second half the group's taxable profit amounted to £3.86m (£3.85m). The dry cleaning sector contributed £5.64m (5.09m) to trading profits, on turnover up to £58.03m (£41.28m). In the UK the group is continuing to

improve its range of dry cleaning shops, Mr Crockett says, and to install "on the spot" shoe repair facilities in appropriate sites.

It also operates five drive-in units in the UK, and has set up specialist curtain cleaning equipment in a large number of outlets.

Textile rental contributed £1.49m (£1.38) to turnover ahead at £22.25m (£10.74m). Growth in the UK, in both volume and profitability, has been against the general trend, the chairman says.

Performance in the US was also in line with forecasts made during the recent bid. Operating profits there broadly covered all costs, he says, including finance charges from the acquisitions.

The US dry cleaning companies which were part of the group for the whole year (Tuckman's and Capital Varas) showed "substantial" sales and profit increases. The more recent acquisitions are all operating satisfactorily, he adds.

Including the purchases in South Carolina, announced since the year end, total sales of Johnson Group Inc are currently running at an annual rate of £36m (£30.6m). The group is now one of the largest dry cleaning operations in North America, the chairman states. Disposals of



Mr John Crockett

non-trading properties amounting to about £4.5m, helped to finance the US development during the year.

The pre-tax figure was struck after an increased £1.62m (£549,000) in interest charges. Exceptional items included a £27,000 (£221,000) contribution to the pension fund, and the £1.6m (£1.6m) loss if it were not for the £550,000 made on the conversion of a US debt. The pre-tax would actually have made a major contribution to the restoration of satisfactory customer.

After tax of £1.84m (£1.45m), and extraordinary items adding £475,000 (£569,000), attributable

profit emerged slightly lower at 55.3m (£5.39m).

• comment

In mid-December Johnson Group forecast profits and dividend in their defence against the Nottingham Manufacturing bid. As they were right to the last penny it is not surprising that the market has responded by marking the shares just 2p higher at £37.7p. However the bid defence cost £580,000 in fees and dividend cover has been shaved to the bone in order to reward shareholders for saying "no".

Start-up costs of expansion in the U.S. have hit margins but in the coming year this is expected to pay dividends. Within weeks the group expects to make a further acquisition and capture 25 per cent of the South Carolina market. One result of the merger battle has been institutional pressure to tidy up the capital structure and action on the employees' share scheme is promised, this year. Most emphasis is going to have to go, however, on improving margins, down to 10.2 per cent overall, in order that profits should rise again.

Most of the group's cash is held by pension funds, and if it were not for the £550,000 made on the conversion of a US debt, the pre-tax would actually have made a major contribution to the restoration of satisfactory customer.

Looking to 1985 he says a plan for reconstruction of the security printing operation has been drawn up. He adds that although significant costs will be borne in the opening six months, when fully implemented the restructuring will make a major contribution to the restoration of satisfactory customer.

Mr Wigglesworth anticipates a "modestly profitable trading by the second half of 1985" and with this in mind is recommending payment of a final dividend of 1p. This leaves shareholders with a total distribution of 5.4p net, compared with a previous 11p.

The directors warned last November that as a result of costs and the loss of revenue from the sale of its Glencairn hotel in Edinburgh to New British Hotels, the group's 1984 profits will be around £1.7m.

Each of the four hotels made a "positive contribution" to an operating profit of £1.7m, although the performance was restricted by the start of refurbishment in October.

Glass Container operators contributed less at £20,000 (£20,000 added £18,000 (£113,000)).

Shareholders are set to receive a higher interim dividend of 1.55p (1.4p) which is covered

Placing values Associated Steel at £11m

Associated Steel Distributors, a steel stockholding associate of Cointinho Caro, West German international trading group, is coming to the USM with a market capitalisation of £11m.

Hambro Capital has placed 280,000 new shares, or 12 per cent of the enlarged equity, to raise £1.2m net for the company. After the placing Cointinho Caro will retain a 79 per cent stake in Leeds-based ASD and has promised not to sell any shares in the foreseeable future.

Profits have grown steadily from £1.13m pre-tax from sales of £38m in 1980, to £1.6m in 1981, a turnover of £200m last year. The company says improved trading conditions in 1984 have continued into 1985.

At the 15.5p placing price, the price/earnings multiple is 6.7 times based on 1984 earnings adjusted for the interest saving from the funds raised in the placing and a tax charge of 18 per cent.

There is no profit forecast. But the directors are predicting a 8p net dividend for the current year, giving a 7.4 per cent yield at the placing price.

The broker to the issue is De Zoete and Bevan.

Chemical side bolsters Canning

AN IMPROVEMENT by W. Canning's core business, chemicals, coupled with a reduction in net interest charges turned a 5.5 per cent increase in group trading profits for 1984 into a rise of nearly 27 per cent at the tax level.

Trading profits rose from £2.04m to £2.16m with £1.94m, against £1.37m, attributable to chemicals and allied materials. Interest charges were £298,000 lower at £213,000 which left the taxable result £411,000 ahead at £1.94m.

Mr F. J. Essex, group chairman, says that all subsidiaries traded profitably with the exception of Marston Bentley Inc and Canning Foods.

Losses at Marston were due, says the chairman, to investment to increase market share for sealants in the U.S.

Chemical activities "all performed very strongly, benefiting" he says, "from improved market conditions at home and overseas."

Precious metal prices, however, were "increasingly disappointing" through the year and the resultant profit shortfall was made worse by the lower volumes produced.

Electronics turnover increased and there was a small rise in gross margins. "However, sales and incremental profit in the December month were adversely

affected by the general downturn in the electronic market," says Mr Essex.

He adds that group profitability was affected by both an increase in overheads and a reduction in net interest charges due to the continuation of the present favourable economic climate in our home and overseas markets the company is well placed to achieve improved results in the 1985 year."

The dividends total for 1984 is up from 2.5p to 3.5p (a final of 0.7p) is recommended, which is better than the 3.25p forecast.

Stated earnings per 25p share rose from 7.22p to 9.95p, after tax of £377,000 against £312,000 — minorities accounted for £24,000 (£29,000).

● HB Electronics Components, a subsidiary which has a USM quotation, increased its pre-tax profits in 1984 from £104,000 to £187,000 despite a slowdown in the second half.

Turnover rose from £2.21m to £4.75m — the company has interests in the distribution of electronic components and production aids.

A higher final dividend of 0.75p (0.7p) is recommended, making a total distribution of 1.25p.

● comment

Brent Chemicals' short foray

into the shares of Canning last year highlighted the company as a bit of a "tart". While the market has been drawn to the financials of white and grey knights soon on to Canning's head office — Croda may well have been among that select band. So in the glare of that spotlight, Canning could have hoped to have something better to report to its shareholders than yesterday's profits rise of 27 per cent which left the shares 15.5p lower at 55.3m (£5.39m).

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● comment

Brent Chemicals' short foray

Enterprise Oil

A year of substantial progress.

Results in brief

	31 December 1984	1983
	(eight months)	(eight months)
	£m	£m
Turnover	266.7	142.5
Pre-tax Profit	138.5	83.2
Taxation	(75.9)	(52.4)
Profit on Ordinary Activities after Taxation	62.6	30.8
Earnings per share	29.5p	14.5p
Dividends per share	8.0p	Nil

Dividend

Results have exceeded those forecast on the Offer for Sale last June. The Board is therefore recommending an increase of 1p per share in the final dividend, to 5p per share, bringing the total for the year to 8p.

HIGHLIGHTS

- Profits after taxation of £62.6 million compared with £47 million forecast last June.
- Production averaged 32,000 barrels a day, nearly one third more than in 1983.
- Important gas discovery in the North Sea, 65 miles north east of Hull.
- Encouraging results for development potential of Arbroath oil discovery 140 miles east of Aberdeen.
- Interests in 35 blocks on the UK Continental Shelf — an increase of nearly one third during the year.

"Enterprise is well positioned to exploit opportunities for growth".

Enterprise Oil

Full Report and Accounts available 22 April 1985 from the Secretary:
Enterprise Oil plc, 5 Strand, London, WC2N 5HU

Bemrose dives to break-even for year

THE LATEST industry figures for Scotch whisky sales in the UK indicate that Arthur Bell & Sons has done better than some of its competitors.

Mr Raymond Miquel, group chairman, says in his interim statement that while sales in the first half of 1984-85 declined from £114.1m to £113.3m the industry figures show an overall drop of 4 per cent.

This, he says, "indicates that Bell's Scotch Whisky has main-shaved its market share of over 20 per cent" and adds that the company will in 1985 spend over £1m on promotional activity in

the traditional Scotch whisky division again accounted for the lion's share of profits, but the four per cent increase reported by the Scotch whisky industry seems to be a rise in the security printing business, particularly cheque printing.

However, group chief executive Mr David Wigglesworth tells shareholders that by year-end the major technical problems had been solved and Bemrose was able to achieve full-scale production to meet the requirements of its bank customers.

Looking to 1985 he says a plan for reconstruction of the security printing operation has been drawn up. He adds that although significant costs will be borne in the opening six months, when fully implemented the restructuring will make a major contribution to the restoration of satisfactory profit levels.

Mr Wigglesworth anticipates a "modestly profitable trading by the second half of 1985" and with this in mind is recommending payment of a final dividend of 1p. This leaves shareholders with a total distribution of 5.4p net, compared with a previous 11p.

The directors warned last November that as a result of costs and the loss of revenue from the sale of its Glencairn hotel in Edinburgh to New British Hotels, the group's 1984 profits will be around £1.2m.

Each of the four hotels made a "positive contribution" to an operating profit of £1.7m, although the performance was restricted by the start of refurbishment in October.

Glass Container operators contributed less at £20,000 (£20,000 added £18,000 (£113,000)).

Shareholders are set to receive a higher interim dividend of 1.55p (1.4p) which is covered

A. Bell maintains share of Scotch whisky market

more than six fold by basic earnings per share of 10.05p.

Taxable profits were struck after net interest charges of £84,000 (receivable £84,000). The tax charge was £12.2m (£7.81m).

• comment

Arthur Bell's results, though delivered with all the painlessness of the 18th Hole at Gleneagles, were not particularly inspiring. Bells managed to hold its own in a declining UK market for whisky, but not without some shaving of margins on its brands; overseas, sales were up 20 per cent. With the group merely aiming to stay still at home, Bells was surely right to seek direct entry to the U.S. market through the purchase of Wallingford Importers.

Exclusive distributor houses have recently been appointed in the U.S., where marketing operations were commenced last May using Wellington Importers to obtain operating licences.

Promotional spending this year in the U.S. will be around £2m, to be taken some time mid-year, and those who thought that a £10m refurbishment seemed generous must beaghast at the further £2m to be spent on providing those sporting facilities so dear to the chairman's nature. Once again, even if a 10 per cent performance of £2.2m before tax suggests little for the share price down 12p to 148p yesterday.

Dee bid has cost Booker £2.1m so far

By Alexander Nicol

Booker McConnell, the agribusiness food distribution and meat products group, yesterday paid the cost of its enforced bid for Dee Corporation at £2.1m.

The figure was disclosed in Booker's preliminary results for 1984, most of which had already been included in the defence document against Dee's current £334m bid, which reaches the first closing date on Friday.

Last summer's bid lapsed when it was referred to the Monopolies Commission.

Mr Jonathan Taylor, managing director, said the total included fees for lawyers and professional advisers, which for merchant bank G. Warburg, as well as the costs of putting Booker's case to the Monopolies Commission. The 1984 figure is expected to cover virtually all legal defence costs, leaving a very

NatWest's \$400m floater tests new UK rules, Page 38

SECTION III - INTERNATIONAL MARKETS

FINANCIAL TIMES

Wednesday March 27 1985

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WALL STREET

Chill winds follow more forecasts

A DISTINCT chill came over Wall Street yesterday morning after several major US corporations followed IBM in warning of disappointing progress in the opening quarter of this year, writes Terry Byland in New York.

General Electric fell sharply after commenting on profits trends, while references to the adverse effects of the dollar from Minnesota Mining & Manufacturing and from Hercules also served to check an early advance by blue chips.

Selling of some selected blue chips was heavy, and at mid-morning losses were rapidly replacing early gains. However, the rout was checked by a further dip in the federal funds rate which spurred the bond market ahead as it awaited news from the auction of \$6.25bn in four-year Treasury notes, which represents the first leg of the week's \$16.25bn funding programme by the Federal authorities.

At noon, as traders showed their bands at the auction, the yield on the four-year notes dipped to 11.28 per cent from 11.35 per cent overnight and 11.37 per cent on Friday.

Stocks soon responded and an early fall of more than three Dow points was

replaced with a similar gain, until buying faltered in the final hour of trading. A convincing rally in technology stocks, featuring Texas Instruments, \$21 up at \$111½ and Data General, \$1½ higher at \$43¾, provided the impetus for the market's recovery.

At the close, the Dow Jones industrial average was a net 0.22 points down at 1,259.72 on turnover of 90.2m shares.

Nevertheless, the rash of corporate profits warnings was a blow to confidence on Wall Street, which has been assuming that corporate earnings will, at worst, hold steady in 1985. The pessimistic forecasts from IBM, 3M and other major names indicated that 1985 profit totals now depend heavily on the progress of the US economy in the second half of the year.

General Electric delayed at the opening by some confusion over the contents of the board's earnings statement, later fell sharply, topping the active list in hefty selling, after confirming that first-quarter results will not short of expectations. The stock showed a loss of \$1½ to \$30¾.

A further substantial upset came when 3M downgraded its first-quarter forecasts, blaming both the effects of the dollar and slower-than-expected growth in the economy. 3M, also delayed at first, reopened to drop \$2½ to \$81¾.

The warning on the dollar – of general significance to the Wall Street leaders – was repeated by Hercules, which dipped \$1½ to \$32¾ after predicting a 20 per cent drop in earnings for the first quarter.

Other shocks from the corporate sector included General Mills' disclosure that a \$113m charge will bring a loss for

the current quarter – which lowered the shares by \$1½ to \$56¾.

The technology sector was active, after both AT & T and Burroughs revealed new product plans. Despite these signs of stronger competition, IBM rallied \$3 to \$125¾. AT & T, which had made a determined move towards the desktop office computer market with its new model, was subdued at an unchanged price of \$21¾. Burroughs, announcing a new mainframe machine, added \$3½ to \$58¾.

A major casualty was Control Data, down \$1½ to \$30¾ after the computer industry analyst at E. F. Hutton sharply reduced his profits forecast and recommended selling the stock.

In the motor sector, General Motors added \$1½ to \$74¾, Ford \$1½ to \$43¾ and Chrysler \$3¾ plus ¼, all responding to the better-than-expected trend of industry sales in the first half of March. But American Motors, which announced that it was extending its offer of cheap financing on its slow selling small car models, shed \$1½ to \$3¾.

Oil stocks also improved led by Exxon, \$1½ higher at \$50½ after disclosing the sale of some European assets to Statoil. At \$46¾, Atlantic Richfield 48½ plus ¼. Confirmation that Gains Berland has been an "active buyer" put another \$1½ to \$43¾ on Texaco.

With the federal funds below 8 per cent at one stage, Treasury bill rates showed a fresh fall from the overnight auction rates. Yielding 8.80 per cent, six-month bills were 4 basis points off.

In the bond market, gains extended to around half a point, putting the price of the key long bond at 96¾.

LONDON

Rate fears depress the mood

FURTHER indications of the Government's reluctance to allow interest rates to fall too quickly left London shares lower on the day and the FT Ordinary index finished down 7.8 to the session's lowest level of 982.0.

A continued list of trading statements brought mixed responses. Preliminary results took British Aerospace up 20p to 396p and Standard Chartered added 5p to 465p. The interim statement from Arthur Bell fell short of expectations, leaving the share down 12p at 146p.

Chief price changes, Page 36; Details, Page 31; Share information service, Pages 32-33.

HONG KONG

THE ABSENCE of foreign institutional buying of Jardine Matheson stock and the unwillingness of local buyers to step into the void ahead of the group's results on Friday, undermined Hong Kong, leaving the Hang Seng index to close down 18.10 at 1,344.13.

Jardines shed 35 cents to HK\$8.95 as market speculation about a possible takeover of it, or perhaps Hongkong Land, abated. HK Land slipped 5 cents to HK\$4.85.

Swire Pacific was unchanged at HK\$21.90 in continued response to Monday's results, but Hongkong Hotels dipped 50 cents to HK\$32 as investors registered disappointment with its announcement of a 9 per cent rise in profits.

SINGAPORE

LACK of buying demand in the run-up to the end of the current settlement month left Singapore lower and the Straits Times industrial index finished down 5.29 at 825.87.

Cycle & Carriage, which has enjoyed a run-up amid reports of a possible takeover, traded another 10 cents higher at one stage. However, the stock turned down late in the day after indications that no deal was in the offing, to close 16 cents off at \$34.02.

AUSTRALIA

AN EASIER trend among precious metals prices left Sydney turning back from the record high set on Monday amid the view that the market's recent run-up may have been overdone. The All Ordinaries index fell 3.4 to 817.8.

RHP was heavily traded, losing 12 cents to AS\$5.96 and CSR shed 2 cents to AS\$2.88.

Arnotts, for which Bond Corp is bidding AS\$4.20 a share, rose 10 cents to AS\$3.40.

SOUTH AFRICA

THE lack of a clear lead from world bullion prices left gold shares easier at the end of a thin day's trading in Johannesburg. Vaal Reefs shed R4.25 to R161, while Grootvlei lost 15 cents to R17.35.

Diamond share De Beers eased 5 cents to R9.85 but mining financial Anglo American added R1 to R24. Both groups have major interests in Minoro, which was steady at R17.50 ahead of interim results.

CANADA

A MIXED tone was seen in Toronto, continuing the uncertainty of the previous session.

Canadian Commercial Bank preferred shares remained halted after Monday's CS\$25m Government-backed financial rescue. The bank projected a possible return to profitability next year.

Gold shares were higher with Campbell Red Lake up CS1½ at CS28¾ and Dome Mines CS½ ahead at CS12¾.

Montreal moved marginally higher.

الجامعة العربية

TOKYO

Hopes rise of fresh price surge

EXPECTATIONS that stock prices will rise during the coming month mounted rapidly in late Tokyo trading yesterday, enabling equities to recoup most of the ground they lost in the morning, writes Shigeo Nishiwaki of *Yomiuri*.

Investors selectively sought large-capital chemical, shipbuilding and biotechnology-related stocks, anticipating they would spearhead a renewed advance.

The Nikkei-Dow market average lost 35.57 points in early trading, but picked up to close only 1.11 lower at 12,486.15. Volume soared from 247.1m to 410.6m shares. Declines outpaced advances by 438 to 335, with 156 issues unchanged.

Institutional investors generally remained on the sidelines in the morning but became livelier later on expectations that trust banks would be brisk purchasers in April, using the massive funds deposited in their money trust accounts.

Major securities companies actively bought large-capital stocks. Mitsubishi Heavy Industries headed the active list with 22.75m shares changing hands, gaining Y13 to Y279. Kobe Steel rose Y7 to Y170 and Nippon Kokan added Y3 to Y140.

Highly capitalised chemicals also drew buying interest, with Mitsui Toatsu firming Y19 to Y281, on the second biggest volume of 21.08m shares. Mitsubishi Chemical climbed Y19 to Y459. Mitsubishi Estate Y17 to Y830 on investor interest in its huge off-the-book assets and Mitsubishi Warehouse Y6 to Y83.

Sumitomo Metal Mining put on Y80 to Y1,950, matching its record reached last May. Mitsui Mining and Smelting gained Y3 to Y559, and Nippon Mining moved up Y22 to Y397.

Elsewhere, Green Cross advanced Y190 to an all-time high of Y3,380 on continued interest in biotechnology issues. But Asahi Chemical eased Y10 to Y865 on profit-taking. Nomura Securities climbed Y50 to a record of Y1,320.

By contrast blue chips dropped sharply.

Sony shed Y130 to Y4,460, Matsushita Electric Industrial Y60 to Y1,550, and Canon Y40 to Y1,420. The setback reflected reports on moves to present an import surcharge bill to the US Senate and a shift of interest among some investors to large-capital stocks.

Bonds firmed slightly in extremely slow trading. Many institutional investors planned to keep a low profile until after Thursday's auction of 20-year U.S. Treasury bonds.

The yield on the benchmark 7.3 per cent government bond, maturing in December 1993, declined to 6.720 per cent from 6.740 per cent on small-lot buying by securities houses.

EUROPE

Dearth of buying activity

A DEARTH of buying activity plagued European bourses yesterday leaving most centres weaker although German shares benefited from the return of some overseas investors.

Brussels generated a lengthy casualty list of sharp falls that took 22.54 off the Stock Exchange index to 2,271.08.

Gevart lost another 7 per cent of its share value, continuing the unbroken decline of the past fortnight, with a BF175 drop to BF1 3,875 while Petrofina slipped an early BF1 150 on persistent reports of difficulties at one of the group's production platforms in the Ekofisk complex in the North Sea. The industrial group, which has also steadily lost ground over the past two weeks, managed a late rally to close a net BF1 50 up at BF1 8,730.

In the financial sector, Cobepa retreated BF1 85 more to BF1 3,505 despite the surge in 1984 earnings and plans to boost the dividend.

Frankfurt repaired some of the damage sustained on Monday with a 1.9 point gain in the Commerzbank index to 1,204.1. This was partly due to the reappearance of some foreign demand which, however, lacked any follow-up buying.

Banks were broadly weaker with Bayerische Hypo shedding a further DM

to DM 330 despite Monday's higher results. Bayerische Vereinsbank picked up DM 2 to DM 333 on results and Deutsche Bank lost DM 2.30 to DM 443 ahead to day's dividend news.

The profit-takers continued to dominate the quality car sector as Porsche dropped DM 12 to GM 1,228 ex-dividend, Daimler retreated DM 2 to DM 675 although BMW partially recovered from Monday's bruising with a DM 1.30 rise to DM 361.50.

Insurer Munich Re featured with a DM 15 to DM 1,175 while associate Allianz added DM 5 to DM 1,054 ex-rights.

Linde firmed DM 2 to DM 241 ahead of result tomorrow and Degussa dropped DM 4 to DM 362 prior to its trading statement today.

Lufthansa, which looks less likely to appear on the Government's list of privatisation candidates, picked up DM 2 to DM 195, just below its high for the year.

Klöckner firmed DM 30 pfd to DM 74.30 on consideration of its more buoyant profits performance.

Bond were steady with fluctuations of up to 15 basis points. The Bundesbank sold DM 29.2m in paper compared with Monday's purchases of DM 6.5m.

Internationals managed a modest recovery in an easier Amsterdam as Royal Dutch rose F1 1.10 to F1 197.20 although Philips was unchanged at F1 197.20.

Banks made isolated progress with ABN up F1 2 to F1 407 while brewer Heinen edged 10 cents higher to F1 157.

Bonds gained momentum as domestic institutions and foreign buyers emerged. Bids totalling F1 5.25m for the new 6.25 per cent state loan were accepted. The price of 101.80 yields 7.93 per cent.

Paris, initially unsettled by disruption on the floor of the bourse, finished barely changed.

Galerie Lafayette featured in a mixed stores sector with its FF 26 rise to FF 362 while Au Printemps firmed FF 2 to FF 222.

A lack of buying was evident in virtually every Zurich sector although Credit Suisse moved against the trend in financials with a SwFr 5 rise to SwFr 2,440.

The steady mood in bonds continued. A broadly lower Milan saw Montedison steady at L1,508 ahead of its reorganisation while Olivetti dropped L150 to L1,850 after its Docutel control decision.

Stockholm was mixed, while Madrid moved higher in active trading. Copenhagen was generally higher where changed.



Multinationals: Innovators in High Technology?

Hotel Vier Jahreszeiten, Munich: 24 & 25 April, 1985

The Financial Times and the Institute for Research and Information on Multinationals are arranging a second major international conference on multinationals. This year's meeting will look specifically at the role and impact of multinationals as technological innovators on the economic structure and competitiveness of Europe.

To be chaired by Viscount Etienne Davignon, former Vice-President of the EEC and Mr Bertil Bolin, Deputy Director General of the International Labour Office, the distinguished panel of speakers will include:

Dr Franz Josef Strauss MdL
Prime Minister of Bavaria

Count Albrecht Matuschka
Chairman
Matuschka Group

Professor Dr Karl Heinz Beckurts
Head of Corporate Research & Technology Division
Member of the Managing Board
Siemens AG

Mr Romeo Roncucci
Director of Research & Development, SANOFI

Dr Wisse Dekker
President and Chairman of the Board of Management
NV Philips, Gloeilampenfabrieken

Professor Gerd Junne
Professor of International Relations
University of Amsterdam

Mr Percy Barnevick
President and Chief Executive Officer
ASEA AB

Mr Georges Debonne
President
ETUC—European Trade Union Confederation

The languages of the conference will be English, French and German and simultaneous translation will be provided.

Multinationals: Innovators in High Technology?

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NEW YORK STOCK EXCHANGE COMPOSITE CLOSING PRICES

12 Month		Low		Stock		Div.		P/E		SIS		Close		Close		P/E		SIS		Close	
High	Low	High	Low	Class	Pre.	Div.	Yld.	High	Low	High	Low	High	Low	High	High	Low	High	High	Low	High	Low
121	161	180	159	AAR	48	30	7	100	98	100	97	100	98	100	100	100	100	100	100	100	100
122	162	186	164	AGS	48	24	14	196	185	194	184	194	185	194	194	194	194	194	194	194	194
123	163	187	165	AMCA	48	30	7	243	195	216	194	216	195	216	216	216	216	216	216	216	216
124	164	188	166	AMF	48	24	14	224	196	226	195	226	196	226	226	226	226	226	226	226	226
125	165	189	167	AMR	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
126	166	190	168	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
127	167	191	169	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
128	168	192	170	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
129	169	193	171	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
130	170	194	172	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
131	171	195	173	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
132	172	196	174	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
133	173	197	175	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
134	174	198	176	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
135	175	199	177	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
136	176	200	178	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
137	177	201	179	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
138	178	202	180	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
139	179	203	181	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
140	180	204	182	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
141	181	205	183	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
142	182	206	184	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
143	183	207	185	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
144	184	208	186	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
145	185	209	187	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
146	186	210	188	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
147	187	211	189	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
148	188	212	190	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
149	189	213	191	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
150	190	214	192	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
151	191	215	193	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
152	192	216	194	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
153	193	217	195	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
154	194	218	196	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
155	195	219	197	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
156	196	220	198	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
157	197	221	199	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
158	198	222	200	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
159	199	223	201	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
160	200	224	202	AMT	48	24	11	261	226	276	225	276	226	276	276	276	276	276	276	276	276
161	201	225	203	AMT	48	24	11	261	226												

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AMERICAN STOCK EXCHANGE COMPOSITE CLOSING PRICES

Continued on Page 30

NEW YORK STOCK EXCHANGE COMPOSITE CLOSING PRICES

FINANCIAL TIMES

The Financial Times can now offer advertising which appears only in the international edition, which covers mainly the European Continental market place and the Eastern Seaboard of the USA. In addition we are able to offer a separate advertising copy facility between our London and international editions together with a spot colour in our international edition.

Separate company insets are also available in our international edition as well as our London edition and if you should require any further information on the above, please contact your usual Financial Times

WORLD STOCK MARKETS

AUSTRIA

Mar. 26	Price Sch's	+ or -/-	GERMANY	Mar. 26	Price DM	+ or -/-
Creditanstalt...	824	-1	ABC Telef...	110.6	-1.2	
Gesells...	424	-1	Allianz Vors...	1024.0	-2	
Interaufahl...	500	+5	BASF	203	-0.7	
Laenderbank...	241	+1	Bayer	213	-	
Perfinancer...	385	+4	Bayer Uro...	333	-6	
Victheser Mag...	890	-4	BMW	266	-	

BELGIUM/LUXEMBOURG

March 26	Price Fr.	+ or -/-
B.B.I.	1,110	+6
Belgian Int'l. Ltd.	1,010	-
Bekaert B...	5,320	-5
Giment C&B...	2,600	-3
Cockerill...	465	-6
Oelarzair...	7,000	-300
Hochul...	207	-
Hoechst Weite...	10,11	-0.8
Industrie (IP)	1,000	-
Electrobel...	8,670	-
Fabrique Nat...	2,990	-20
GB Inno BM...	5,250	-
Gevaert...	3,775	-275
Hoboken...	6,850	-
Intercom...	5,800	-83
Pan Hides...	17,400	-
Petrofina...	6,750	+50
Royale Belge...	11,300	-
Soc. Gen. Belg...	5,000	-10
Sofina...	7,670	-15
Solvay Int'l...	4,410	-90
Tractebel...	5,500	-
UCB...	2,990	-40
Wagon Lits...	2,990	-

DENMARK

Mar. 26	Price Krn's	+ or -/-
Andelsbanken...	267	-94
Baltic Stand...	640	-
Banca Dan...	5,420	-
O. Sukkerfab...	543	-
Danske Bank...	274	-
Euro. Luft...	1,770	+1
Fernende Bryg...	900	-
Fernende Oamp...	512	-1
Fjordbank...	1,156	-
I.S.B...	410	-
Jyske Bank...	660	+10
Kovo Int'l...	1,675	+3
Provinbanken...	524	-
Provins...	5,000	-
Smith (P)	885	-
Superfund...	1,003	-3
Superfunds...	1,464	-

FRANCE

March 26	Price Fr.	+ or -/-
Emprunt à 1973	1,663	-24
Emprunt 73, 1973	1,199	-
Emprunt 73	273	+1
Ex Liquid...	273	-
SIG...	537	-6
Bongrain...	1,320	+37
Rouyens...	1,118	-
Gen. Générat...	2,830	-
GIT-Alcatel...	1,322	+7
Carrefour...	1,365	-1
Crédit Agric...	1,365	-1
Crédit Bancarie...	389	-
Gefimed...	275.3	-
Damart...	2,120	-26
Durres S...	1,200	-50
Eaux/Ci Gen...	560	+4
Ex Aquitaine...	1,255	-
Ex Energie...	1,220	-
Ex Met...	1,220	-12
Imet...	166.3	-5
Latarge Copepe...	460	+12
Ledrapack...	1,200	-
Marcotte Phent...	222	-40
Perrotte Fr...	222	-2
Peugeot S.A...	289	-
Printemps-Aut...	222	-2
Radotech...	266.1	-2.8
Redote...	139	-0.1
Reinco...	68.4	-
Safineq...	524	-
Skinrossom...	1,920	-15
Trophie Tech...	555	-11
Thompson Cos...	233	-11
Voice...	233	-8

NOTES — Prices on this page are as quoted on the individual exchanges and are not traded prices. * Oceanus suspended. ** Ex dividend. *** Ex scrip issue. **** Ex rights. *** Ex aff.

CANADA

TORONTO		Closing prices March 26									
Sales Stock		High Low Close Chg% Sales Stock									
Closing prices March 26		4000 Cais Res									
4000 Cais Res		3,827 Dom Dev									
4000 Cais Res		5623 Dom Ind									
4000 Cais Res		5625 Dom Int'l									
4000 Cais Res		5626 Dom Int'l									
4000 Cais Res		5627 Dom Int'l									
4000 Cais Res		5628 Dom Int'l									
4000 Cais Res		5629 Dom Int'l									
4000 Cais Res		5630 Dom Int'l									
4000 Cais Res		5631 Dom Int'l									
4000 Cais Res		5632 Dom Int'l									
4000 Cais Res		5633 Dom Int'l									
4000 Cais Res		5634 Dom Int'l									
4000 Cais Res		5635 Dom Int'l									
4000 Cais Res		5636 Dom Int'l									
4000 Cais Res		5637 Dom Int'l									
4000 Cais Res		5638 Dom Int'l									
4000 Cais Res		5639 Dom Int'l									
4000 Cais Res		5640 Dom Int'l									
4000 Cais Res		5641 Dom Int'l									
4000 Cais Res		5642 Dom Int'l									
4000 Cais Res		5643 Dom Int'l									
4000 Cais Res		5644 Dom Int'l									
4000 Cais Res		5645 Dom Int'l									
4000 Cais Res		5646 Dom Int'l									
4000 Cais Res											

2 Day Training Programmes

Time Manager International
50 High Street, Henley-in-Arden, Solihull,
West Midlands B95 5AN.
Tel: (05642) 4100

BRITISH FUNDS

1984-85 High Low	Stock	Price \$	Yield %	Div \$	Red. %	Yield %	PE
"Shorts" (Lives up to Five Years)							
92 93 Treas 1984-85		10.64	1.25				
92 93 Fins 11 1984-85		11.51	1.25				
92 93 Fins 12 1984-85		12.27	1.25				
92 93 Fins 13 1984-85		12.27	1.25				
92 93 Fins 14 1984-85		12.27	1.25				
92 93 Fins 15 1984-85		12.27	1.25				
92 93 Fins 16 1984-85		12.27	1.25				
92 93 Fins 17 1984-85		12.27	1.25				
92 93 Fins 18 1984-85		12.27	1.25				
92 93 Fins 19 1984-85		12.27	1.25				
92 93 Fins 20 1984-85		12.27	1.25				
92 93 Fins 21 1984-85		12.27	1.25				
92 93 Fins 22 1984-85		12.27	1.25				
92 93 Fins 23 1984-85		12.27	1.25				
92 93 Fins 24 1984-85		12.27	1.25				
92 93 Fins 25 1984-85		12.27	1.25				
92 93 Fins 26 1984-85		12.27	1.25				
92 93 Fins 27 1984-85		12.27	1.25				
92 93 Fins 28 1984-85		12.27	1.25				
92 93 Fins 29 1984-85		12.27	1.25				
92 93 Fins 30 1984-85		12.27	1.25				
92 93 Fins 31 1984-85		12.27	1.25				
92 93 Fins 32 1984-85		12.27	1.25				
92 93 Fins 33 1984-85		12.27	1.25				
92 93 Fins 34 1984-85		12.27	1.25				
92 93 Fins 35 1984-85		12.27	1.25				
92 93 Fins 36 1984-85		12.27	1.25				
92 93 Fins 37 1984-85		12.27	1.25				
92 93 Fins 38 1984-85		12.27	1.25				
92 93 Fins 39 1984-85		12.27	1.25				
92 93 Fins 40 1984-85		12.27	1.25				
92 93 Fins 41 1984-85		12.27	1.25				
92 93 Fins 42 1984-85		12.27	1.25				
92 93 Fins 43 1984-85		12.27	1.25				
92 93 Fins 44 1984-85		12.27	1.25				
92 93 Fins 45 1984-85		12.27	1.25				
92 93 Fins 46 1984-85		12.27	1.25				
92 93 Fins 47 1984-85		12.27	1.25				
92 93 Fins 48 1984-85		12.27	1.25				
92 93 Fins 49 1984-85		12.27	1.25				
92 93 Fins 50 1984-85		12.27	1.25				
92 93 Fins 51 1984-85		12.27	1.25				
92 93 Fins 52 1984-85		12.27	1.25				
92 93 Fins 53 1984-85		12.27	1.25				
92 93 Fins 54 1984-85		12.27	1.25				
92 93 Fins 55 1984-85		12.27	1.25				
92 93 Fins 56 1984-85		12.27	1.25				
92 93 Fins 57 1984-85		12.27	1.25				
92 93 Fins 58 1984-85		12.27	1.25				
92 93 Fins 59 1984-85		12.27	1.25				
92 93 Fins 60 1984-85		12.27	1.25				
92 93 Fins 61 1984-85		12.27	1.25				
92 93 Fins 62 1984-85		12.27	1.25				
92 93 Fins 63 1984-85		12.27	1.25				
92 93 Fins 64 1984-85		12.27	1.25				
92 93 Fins 65 1984-85		12.27	1.25				
92 93 Fins 66 1984-85		12.27	1.25				
92 93 Fins 67 1984-85		12.27	1.25				
92 93 Fins 68 1984-85		12.27	1.25				
92 93 Fins 69 1984-85		12.27	1.25				
92 93 Fins 70 1984-85		12.27	1.25				
92 93 Fins 71 1984-85		12.27	1.25				
92 93 Fins 72 1984-85		12.27	1.25				
92 93 Fins 73 1984-85		12.27	1.25				
92 93 Fins 74 1984-85		12.27	1.25				
92 93 Fins 75 1984-85		12.27	1.25				
92 93 Fins 76 1984-85		12.27	1.25				
92 93 Fins 77 1984-85		12.27	1.25				
92 93 Fins 78 1984-85		12.27	1.25				
92 93 Fins 79 1984-85		12.27	1.25				
92 93 Fins 80 1984-85		12.27	1.25				
92 93 Fins 81 1984-85		12.27	1.25				
92 93 Fins 82 1984-85		12.27	1.25				
92 93 Fins 83 1984-85		12.27	1.25				
92 93 Fins 84 1984-85		12.27	1.25				
92 93 Fins 85 1984-85		12.27	1.25				
92 93 Fins 86 1984-85		12.27	1.25				
92 93 Fins 87 1984-85		12.27	1.25				
92 93 Fins 88 1984-85		12.27	1.25				
92 93 Fins 89 1984-85		12.27	1.25				
92 93 Fins 90 1984-85		12.27	1.25				
92 93 Fins 91 1984-85		12.27	1.25				
92 93 Fins 92 1984-85		12.27	1.25				
92 93 Fins 93 1984-85		12.27	1.25				
92 93 Fins 94 1984-85		12.27	1.25				
92 93 Fins 95 1984-85		12.27	1.25				
92 93 Fins 96 1984-85		12.27	1.25				
92 93 Fins 97 1984-85		12.27	1.25				
92 93 Fins 98 1984-85		12.27	1.25				
92 93 Fins 99 1984-85		12.27	1.25				
92 93 Fins 100 1984-85		12.27	1.25				
92 93 Fins 101 1984-85		12.27	1.25				
92 93 Fins 102 1984-85		12.27	1.25				
92 93 Fins 103 1984-85		12.27	1.25				
92 93 Fins 104 1984-85		12.27	1.25				
92 93 Fins 105 1984-85		12.27	1.25				
92 93 Fins 106 1984-85		12.27	1.25				
92 93 Fins 107 1984-85		12.27	1.25				
92 93 Fins 108 1984-85		12.27	1.25				
92 93 Fins 109 1984-85		12.27	1.25				
92 93 Fins 110 1984-85		12.27	1.25				
92 93 Fins 111 1984-85		12.27	1.25				
92 93 Fins 112 1984-85		12.27	1.25				
92 93 Fins 113 1984-85		12.27	1.25				
92 93 Fins 114 1984-85		12.27	1.25				
92 93 Fins 115 1984-85		12.27	1.25				
92 93 Fins 116 1984-85		12.27	1.25				
92 93 Fins 117 198							

AUTHORISED UNIT TRUSTS

Abbey Unit Trs. Mgmt. (a)
1-35 Paul's Chancery, EC4R 4DL. 01-256 1833

High Income
Gds & Fund Int.
Workforce Fund
Capital Growth
Assets & Emp. Tr.
General Assets & Emp.
UK Growth
U.S. Bonds
Explosive Fund

Bridgeman Group—Dividend
Securities Corp.
Corporates Corp.
Int. Lessor M.
Prest. Fund
World Fund

World Tech

Diversified

American Growth

Small Stocks

Am. Sec. Sds.

Ent. Sector

Ent. Smaller Co. Tr.

Fam. Ent.

Ent. Separat.

Ent. Tech.

Ent. Tech. Int.

Ent.

Financial Times Wednesday March 27 1985

CURRENCIES, MONEY and CAPITAL MARKETS

FINANCIAL FUTURES

FOREIGN EXCHANGES

Dollar eases in nervous trading

The dollar lost ground in currency markets yesterday. It was sold during the morning and after a brief rally around lunchtime fell again in the afternoon. Once again the effects of the recent banking crisis in Ohio tended to undermine confidence to some extent. In addition the market was awaiting the results of this week's Treasury auctions and also the release on Friday of U.S. leading economic indicators.

The dollar closed at DM 3.2090 down from DM 3.2120 and SWF 1.07210 compared with SWF 1.07410. It was also lower in terms of the yen at Y255.46 from Y256.65. Against the French franc it fell to FF 9.8025 from FF 9.8275. On Friday it had gained before the dollar's exchange rate index fell from 150.5 to 149.8.

STERLING — Trading range against the dollar in 1984-85 is 1.6468 to 1.6825. February average 1.6923. Exchange rate index 73.7, unchanged from Monday, having touched a high of 75.6. The six months ago figure 76.4.

UK trade figures had little overall effect on sterling, coming in line with most market expecta-

tions. Once again the uncertainty surrounding the U.S. dollar tended to hold the pound within a relatively narrow range.

The pound traded between a high of \$1.6363 and a low of \$1.6250-L1.6250.

Against the D-mark it was unchanged at DM 3.7950 as it was against the French franc at FF 9.159. Against the Japanese yen at Y262.00 from Y260.75 and SWF 3.2225 from SWF 3.2100.

D-MARK — Trading range against the dollar in 1984-85 is 2.4510 to 2.5835. February average 2.3868. Exchange rate

index 1.05.6, unchanged from Monday.

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Comments by Bundesbank President Herr Karl Otto Pöhl

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underlined market sentiment that the recent seals of central bank intervention had helped restrain the dollar at least during any renewed headlong rush into the U.S. unit. However, he stressed that the differential between U.S. and German interest rates could easily be found at its present level, giving rise to speculation that an increase in the level of German interest rates could not be discounted.

The dollar was fixed at DM 3.2310 at yesterday's fixing in Frankfurt against DM 3.2247 and there was no intervention by the Bundesbank. Later in the day the dollar was trading at DM 3.2100 on profit-taking, touching a low of DM 3.2030.

The dollar had reached a high of DM 3.2455 but eased after the opening of the Swiss franc at CHF 1.7500 from DM 3.2700 and the Swiss franc was higher at DM 1.1795.

Comments by Bundesbank President Herr Karl Otto Pöhl

EMS EUROPEAN CURRENCY UNIT RATES

	Ecu	Currency amounts	% change from central parity	% change adjusted for divergence	Overiance
Belgian Franc	44.9028	44.5177	+0.04	+0.04	±2.4%
Denmark Krona	8.14703	7.98291	-0.24	-0.24	±1.4%
German D-Mark	2.24844	2.23443	-0.31	-0.31	±1.4%
Greek Drachma	5.52044	5.51044	-0.09	-0.09	±0.9%
Iceland Gufo	2.52264	2.52254	-0.02	-0.02	±0.0%
Irish Punt	1.72568	1.71658	-1.39	-1.39	±1.6%
Italian Lira	1403.49	1421.22	+1.28	+1.28	±4.0%

Changes are for Ecu, therefore positive change denotes a weak currency. Adjustment calculated by Financial Times.

Forward premium and discounts apply in the U.S. dollar.

Belgian rate is for convertible francs. Financial Times 1.65-1.66 pm.

Swiss rate is for convertible francs. Financial Times 1.65-1.66 pm.

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Swiss rate is for convertible francs. Financial Times 1.65-1.66 pm.

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Swiss rate is for convertible francs. Financial Times 1.65-1.66 pm.

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SECTION IV

FINANCIAL TIMES SURVEY

Mobile Communications

Potentially large communications markets are developing, particularly with the advent of cellular radio, where worldwide annual revenue is expected to be more than \$5bn by the end of the decade.

The selling of cellular

By Jason Crisp

NEW TECHNOLOGY has brought substantial opportunities and business for the mobile communications industry, which was beginning to see most of its traditional markets mature with low growth prospects.

Potentially large new markets are appearing as a result of developments in cellular radio, frequency hopping military radios, data communications by radio and even in new types of radio-pagers or beepers.

Undoubtedly the major advance of the last two years has been the introduction of commercial cellular radio services in many leading countries — more than 20 years after the technique was first devised in American Telephone and Telegraph's Bell labs. The doubts about the commercial future of cellular are fading fast and worldwide revenues are expected to exceed \$5bn a year by 1990.

While the civilian market is being boosted by the prospect of strong growth in cellular radio systems the military market has also been strengthened by demand for a new generation of radios which are smaller and more secure than anything that has gone before.

The industry's greatest sales are still for private dispatch services — taxis, couriers, and local delivery — and the public utilities — fire, ambulance and police. However, cellular radio telephony is expected to

grow so rapidly that it will be greater than the rest of the civilian mobile communications business by the end of the decade.

The coming cellular radio boom has caught much of Europe unprepared, with the notable exception of Scandinavia. While the U.S. and Japan have moved rapidly to introduce cellular radio, several European countries have been dithering and disagreeing over political and technical issues. The result has been that most of the leading suppliers of cellular equipment are American, Japanese or Scandinavian.

Criticism

After a late start Britain has moved quicker than any country to introduce cellular radio. In less than two years since they received government approval two competing networks started service in January in the Greater London area and are being expanded to other cities.

The price of this swift introduction has been a system based on U.S. technology and a high level of imported equipment including exchanges, radio transmitters and mobile telephones. But as the chief executive of one of Britain's mobile communications companies commented: "If we had to start with a clean sheet it would have taken at least three years to get to the point where we had a field-tested mobile for cellular. The Government was not prepared to wait."

Britain's decision to adopt a

version of the U.S.-developed AMPS system of cellular radio has brought considerable criticism from France and West Germany which wanted it to back a European developed system MATS-E. The UK backed AMPS because it was proven while MATS-E was still on the drawing board.

The result is that Britain does have cellular radio and France and West Germany — for a variety of reasons — have given up plans to introduce it next year. Increasingly, questions are being raised as to whether a late European technical solution will be any sort of barrier to U.S. and Japanese companies in full production supplying the large markets which have developed in those countries.

The argument is that the large-scale production of mobile cellular radios will result in both a standardisation and a reduction of the number of components. It may mean cellular radios will only need a small change to work on any technical standard.

Another critical difference between the UK and the rest of Europe which has had a significant impact on the speed at which cellular has been introduced is the environment.

In line with its policy of liberalising Britain's telecommunications the Conservative Government took a leaf out of the U.S. approach to cellular radio. It licensed two competitive systems, one to be run by the national telecommunications carrier British Telecom together with Securicor, the other by the aggressive elec-



The City is expected to be a main user of the new cellular radio networks. Here the link is through British Telecom briefcase and car sets via an aerial such as that at Beulah Hill.

tronics group Racal. "Cellular radio could not have been done quicker than it has in the UK," says Mr. Malcolm Ross, senior consultant at Arthur D. Little. "There is a world of difference in the rules of the game in a competitive environment and one administered by civil servants."

After attempting to collaborate, both France and West Germany have missed out on the boom in cellular services which is appearing in other countries. The reasons for their failure to produce a joint system include disagreements and rivalries between the companies and governments involved. Some observers also believe that com-

panies like Siemens and Matra were committed to other systems they had been developing and that they were not particularly enthusiastic about the proposed collaboration.

It means that potential customers in those countries will have to use more expensive systems until around 1990 when it is proposed to move straight to digital cellular radio.

In the meantime the West German Bundespost will introduce the C-Network next year which has been developed by Siemens and in France, Matra will introduce the Radiocom 2000 system giving the first French national mobile telephone system.

Unencumbered by such European rivals, the U.S. has begun to embrace cellular radio with enthusiasm in spite of setbacks in a few cities. Each major city has — or will have — two licensed operators one from the telecommunications industry and normally one of the Bell Regional Companies which were once part of American Telephone and Telegraph and the other from the radio common carrier business.

Cellular systems are now in operation — or are about to start — in 36 cities and there are nearly 100,000 subscribers. Equipment prices have been plumping from \$2,500 for a mobile unit to \$1,200. By contrast the UK cellular companies have started with prices at the lower level of £1,250 in the hope that they can be sustained.

But the pressures will be for price-cuts. The systems providers will be anxious to build up a substantial population of cellular customers to give the network a "critical mass." More pressure will come from the manufacturers themselves as they jockey for position in what is still a relatively small market.

The commercial battle-lines are being drawn between the Japanese, U.S. and European companies. The Japanese con-

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Mobile Communications 2

Big markets likely for electronics industry



British connection

Excell Communications says it has the only piece of British equipment on the market, its Futurephone, prepared for the Cellnet system in the company's home town of Manchester.

Cellular radio

JASON CRISP

THE ADVENT of cellular radio has marked the beginning of a revolution in mobile telephone communications — at least according to the manufacturers and operators. They argue that lower costs of cellular radio will mean the mobile telephone will no longer be the preserve of senior executives and the very wealthy.

The early signs in Scandinavia and the U.S. indicate they are right. In the four Nordic countries where there is cellular radio, the system has been unexpectedly popular and the telephone authorities have had to step up investment to meet demand.

But the real revolution caused by cellular radio may not occur until nearer the end of the century. The price of mobile radios will have fallen below the cost of laying a conventional local telephone line. Telecommunications authorities and manufacturers are looking at the possible impact mobile radio could have on the whole structure of the telephone network.

Even now cellular radio is likely to create a substantial new market for the electronics industry. The industry is also enthusiastic about applications from sending computer data to

mobile terminals using the cellular system.

The leading companies providing equipment for cellular radio are predominantly Japanese (such as Oki, NEC and Matsushita) and American (Motorola, E. F. Johnson and General Electric). However, European companies such as LM Ericsson (Sweden), Nokia (Finland) and Siemens also have a strong presence.

Some analysts believe cellular radio will become so competitive and that equipment prices will fall so rapidly there will be a shake-out in the market. The Japanese appear well placed and have aggressive plans to produce cheap mobile telephones by the 1990s.

Drawbacks

Considerable attention has been paid to the potential of the portable telephone although the market will, for the time being, mainly car telephones. However, companies are trying to improve the range and power of portable telephones. Oki is developing a wrist-watch telephone, which only recently would have been confined to science fiction.

But Mr Nigel Playford, manager of PA Technology's Communications group warns: "Hand-held terminals sound very attractive but suffer from major drawbacks. First, they are too large and second, the useful range is restricted to a

"People buying are those you would least expect . . . plumbers and construction site foremen . . . we found no doctors, politicians and no playboys."

small distance around antenna sites."

Several European countries are adopting their own technical standards to discourage imports but the Japanese may still be able to produce cheaper sets. Japanese companies are building mobile telephones with as many common components as possible, requiring only small changes to work on different standards.

Attempts by West Germany and France to opt for a new standard, which differs from the U.S. North and Japan's standard, will mean considerable delays in introducing cellular radio in those countries. The emphasis is on a second generation, digital cellular system. Britain opted for a version of the AMPS system developed by AT&T.

At the same time the European telephone authorities, through CEPT, are trying to agree on a pan-European system for the 1990s.

Cellular radio uses the airwaves more efficiently than the traditional radio telephone technology. It greatly increases the

number of people who can use it in busy city centres, where problems of congestion normally occur. As the system can have many more subscribers, economies of scale for set manufacturers are improved, so radio telephones are made significantly cheaper.

The system works by using a number of low-power transmitters instead of one powerful transmitter covering a wide area. A country is divided into a hierarchy of smaller cells around low-powered transmitters, which can be as little as two miles apart. Scarce frequencies can be re-used across the country—in fact the same frequencies can be used in cells a few miles apart.

The technique has become possible through microprocessor technology. Computers switch the radio from one frequency to another as it moves to a different cell.

The largest service in operation is the Nordic Mobile Telephone system, which spans Sweden, Norway, Finland and Denmark and has more than 150,000 subscribers. Cellular

radio has started to grow rapidly in the U.S. as commercial services begin in more cities after successful trials in Washington and Chicago.

Japan has cellular radio services in major cities such as Tokyo, Nagoya, Sapporo and Osaka. Cellular radio started in the UK in the beginning of the year in the London area and has been extended to Manchester and Birmingham.

France and West Germany will have to wait several years for cellular radio for political and technical reasons.

In spite of considerable enthusiasm for cellular radio by governments, telecommunications authorities there is still a large question mark over the industry. No-one is certain that there is a mass market for mobile telephones.

Early signs, however, particularly in Scandinavia, have been favourable. Arthur D. Little, a U.S. consultancy, sees a potential demand for cellular radio in Europe of 2.6m to 3.8m sets by 1992. It has also revised its expectations for the U.S. market as many as 4m to 6m mobile radios by 1992.

The Scandinavian experience shows that the mobile telephone has found a wider market than just executives. According to research by Arthur D. Little, there is a high proportion of users in industries like road haulage, construction, service and repairs, building services, and the car trade.

"The people buying it are those you would least expect," says Mr Malcolm Ross, a senior consultant at Arthur D. Little. "At first everyone assumed it would be people like doctors, dentists and lawyers. In fact, doctors are the last people who want to be easily contacted. "The market is people with a real commercial need to be in touch, like plumbers and construction site foremen. In our survey we found no doctors, no politicians and no priests," says Mr Ross.

Mr Gerry Whelan, chairman of Racal-Vodaphone, one of two competing cellular networks which have opened in Britain, is optimistic about the potential of cellular radio. "We have watched the take-up rates in Scandinavia being raised time and time again. We see the market with people for whom time is money . . .

plumbers, vets, doctors, freelance journalists and so on."

He believes the market will divide into three main groups: one representing approximately one quarter of subscribers: large companies, self-employed and the rich.

"Every Porsche owner, every Rolls-Royce owner and half the Jaguar owners will have one." Many others in the industry are less convinced that the west will be a good market. The main advantage of private users is that they tend to use the telephone less and therefore occupy the system less. However, when they do talk, it is usually for much longer than a business call.

Mr Peter Towle, managing director of Seacorcom which with British Telecom owns Cellnet, the other UK network, believes the market will change over the first year.

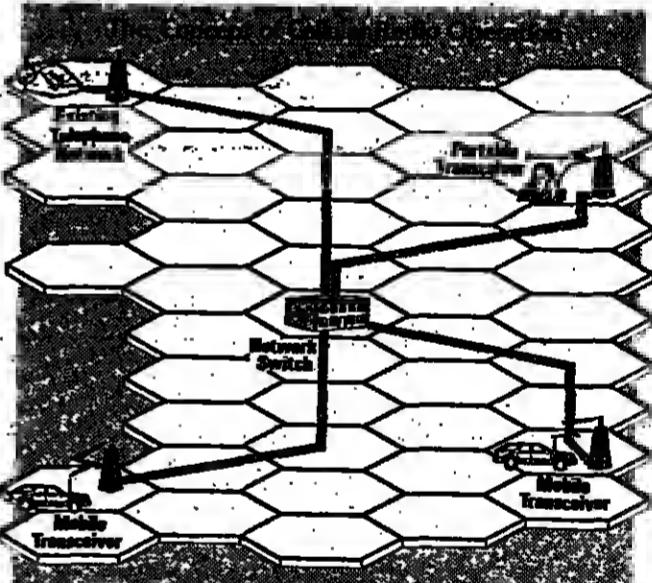
Euphoria

"It will start with top management, who will think they must have the service. The euphoria will have worn off by the summer and we will be at a second stage persuading companies it is a cost effective tool at the middle level. We will be looking at sales and service staff, and anyone who has to speak them on the road."

Demand in the UK has been steady, but not dramatic. The two systems which started in London in January ahead of schedule—have only recently begun to expand to other big cities. Both networks have more than 2,000 subscribers at the level which had been expected. However Cellnet and Vodafone differ greatly on estimates of the potential size of the market.

Cellnet estimates there will be about 250,000 subscribers by 1990 while Vodafone says it will be between 400,000 and 500,000. The difference partly reflects Racal's greater optimism that technical problems when there are a large number of people on the system will be resolved. Like conventional mobile telephones, cellular will have problems of overcrowding of the airwaves in city areas.

More than 30 countries have either started a cellular system or have plans to do so. There appears to be little doubt that cellular is set to become an important part of the world's telecommunications business.



Vehicles and hand sets are connected via low-power transmitter/receivers in their cells through cables to a computer-controlled exchange onto other cells or the main telephone network. Channels are automatically switched when crossing cell boundaries.

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CONTINUED FROM
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tenders include Matsushita, Mitsubishi, Oki, NEC, Nihon Murens and Fujitsu. The U.S. companies include Motorola, GE, Strom, EF Johnson and JTC Corp. The leading European competitors are Nokia, a subsidiary of Nokia, Finland, LM Ericsson of Sweden and to a much lesser extent at the moment Phillips of the Netherlands and Siemens of West Germany.

Although many mobile communications manufacturers have their eyes firmly on the military and business markets a number are also eyeing to capture a share of the growing number of orders for tactical radios. Just as microprocessor technology has made cellular radio possible so it has transformed the battlefield radio.

The growing awareness in the military of the perils and benefits of electronic warfare is convincing buyers to move to more secure radios with frequency hopping and other electronic counter measures. As most Nato countries still use conventional radio without any of the new techniques the potential for re-equipping whole armies is every salesman's dream.

Other areas of mobile communications are benefiting from advances in technology. The general rapid growth in telecommunications — world-wide appears to be extending to

mobile communications. The relatively small business of radiotapping has been growing rapidly in a number of countries, not least Britain which has been rather slow in this field.

Pagers which can store brief messages which are displayed on small alphanumeric displays — like those on a calculator — are being put to new uses. Services which give the owner details of exchange rate or stock market changes are already being sold and mark the beginning of a new form of information service.

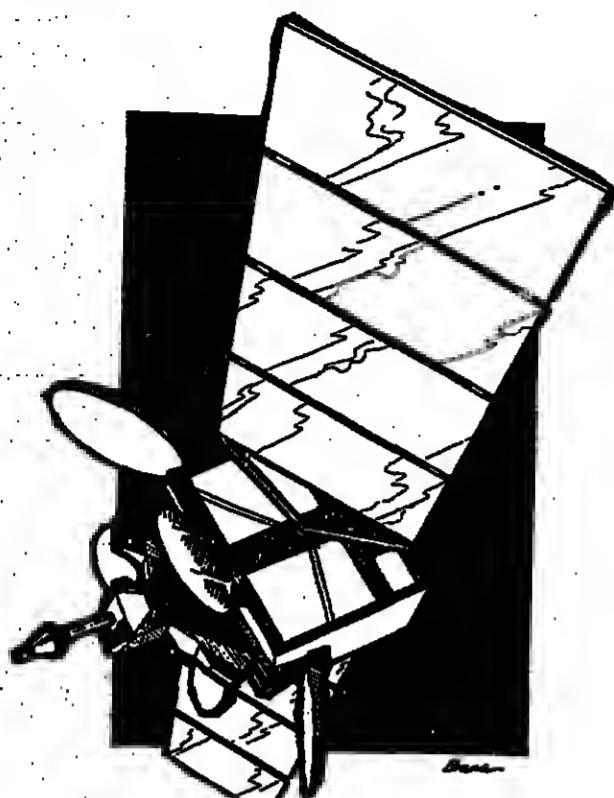
Satellites

Even satellites may become a part of everyday mobile communications. While ships and oil rigs may be used to relay voice and data communications, the receiving dishes are heavy and expensive to ensure that they always point at the satellite in a pitch-black sky. Yet work aircraft will be able to communicate using INMARSAT satellites which will mean passengers could use the telephone as they crossed the Atlantic.

To make the system practical and economic the dishes will have to be much lighter and smaller than those used on ships. But work is also being done in Canada and the U.S. which would enable cars and even hikers in remote areas to use a satellite for communications or navigation.

Mobile Communications 3

Keeping in touch via an eye in the sky



Satellites

PETER MARSH

A RANGE of new satellite services under discussion in North America and Western Europe could give airline passengers access to telephones and enable haulage companies to keep a constant check on vehicle fleets.

The new services would allow transfer of messages between cars and offices separated by the width of a continent. They could also help air-traffic control and provide a navigation service for hikers.

Such possibilities arise from discussions led by the Federal Communications Commission in the U.S. and the European Space Agency, an 11-nation "club" based in Paris for research in space technologies.

The FCC has called for detailed proposals from U.S. industry for satellite services for mobile communications. The proposals due by the end of this month could be followed by a go-ahead by the end of the year, leading to an operational system in 1988.

Several companies, mainly little known outside the satellite industry but including Hughes Aircraft, have said they will file proposals. The U.S. mobile-communications satellite system would run in tandem with a service by Telesat, a Canadian company half owned by the Government.

The FCC hopes to encourage a consortium of U.S. companies to operate one or two satellites in partnership with Telesat, which plans to launch one craft.

Optimistic projections show that by the early 1990s half a million road vehicles could tune into the system across North America. They would have small aerials that point automatically at satellites in stationary orbit 36,000 km above the equator.

The network of U.S.-Canadian satellites could be used for range finding so hikers or vehicles in inimitable parts of North America could tune in to find their position.

Plans for Western Europe are less advanced. There is less need, with towns and cities less closer together than in the U.S. and Canada, for mobile communications systems that use weak signals to be picked up in the original transmission.

The European Space Agency, however, is spending \$15m on its Prosat mobile-communications project in which researchers and industry are developing selective receivers and transmitters for ships, road vehicles and aircraft.

ESA is using the Maresc-A satellite in orbit above the Atlantic. From next year, about 50 vehicles will be fitted with antennas to participate in the experiments. Officials are talking to airlines and road-haulage companies across Europe about taking part in the tests.

However, the system might be resisted by drivers as a "Spy in the sky" that keeps their bosses informed of every movement.

In one imaginative proposal, small vehicles, including ice-cream vans, could be linked to sensors that monitor the goods being carried. A company that operates a fleet of say, ice cream vans could continually check the quality of the product while the vehicles are moving.

This could appeal to any carrier which transports perishable or chemically-reactive products, whether foodstuffs, bulk chemicals or nuclear wastes.

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Antennae

Among industrial groups participating in the Prosat studies and developing terminals are Elektrospace Bureau of Norway, GEC (Britain), Fiat (Italy), ISEL (Spain), Safran Electronics (Belgium) and SNEC (France).

Intelset is likely to buy three more satellites worth \$160m from a British Aerospace/Hughes Aircraft consortium to form the basis for a second-generation system due to enter orbit from 1988.

These satellites, like those in the first generation, will be relatively low-powered, using receiver/transmitter technology of the late 1970s and requiring relatively large aerials on ships using the system.

Most antennae are dishes about a metre in diameter costing about \$30,000. The dishes, similar to those in satellite

television reception, communicate with large antennae on land, which in turn feed signals into the ordinary, cable-based telecommunications network.

Besides Hughes, companies interested in starting a service are Mobilist of King of Prussia, Pennsylvania; Skymail of Boulder, Colorado; Omnitel (Los Angeles) and Transit Communications (Pasadena).

The costs of starting a North American service include about \$200m for the earth stations plus an unspecified sum for up to 1,000 or so base stations with which the mobile antennas would communicate before the signals are transferred into the ordinary land-based telecommunications network.

Skylink is basing its proposal on plans for small aerials on cars, which would cost only \$1,000 to \$3,000 by the early 1990s. Costs of using the system for voice messages would be 30 to 50 cents a minute compared with \$10-\$15 a minute for conventional communications channels.

Aerials on the cars and trucks would probably steer automatically, tuning into control signals from the satellites and pointing in the direction of whichever of the two or three was nearest.

The equipment would not work well in towns and cities, where high buildings would block the satellite signals. Vehicles would have to switch to cellular-radio or other conventional services.



A Digital alpha-numeric (word) pager, showing how messages can be relayed via a screen

Bleeps giving way to words

Paging

RAYMOND SNODDY

THE DIRECTORS of the Air Call telecommunications group used to have the company's latest alpha-numeric radio pagers for transmitting urgent information of postponed meetings or emergencies. But they have had to give them up.

"The pressure from customers was so great and we cannot get enough of them," said Mr Walter Stevenson, Air Call's director for government and external relations.

Before returning temporarily to beepers, Mr Stevenson found his pager useful because the message was relayed directly without the need to make a telephone call.

Air Call introduced their radio pager a year ago and more than 10,000 are now in use. The basic charge is £30 a month and the service is available in London and Aberdeen. It will be introduced in cities such as Birmingham and Manchester later this year.

Air Call believes that the market for radio paging is about to undergo rapid change.

It has supplied equipment and software for the new Reuters Pocketwatch service introduced last December. Pocketwatch is a pocket terminal which gives the latest updated foreign exchange rates and U.S. Federal Fund rate from the Monitor service. A selection of other Reuters information such as commodity prices will probably be added.

Between 200 and 300 Pocketwatchers are already being used at a monthly rate of £60. Although the rate is set to Greater London and around the M25, the service has been picked up in Northampton. Reuters says that during the recent volatility in currencies markets, Pocketwatch enabled dealers to leave the office who would not otherwise have been able to do so.

The next stage will be a radio pager which can carry similar information but which can be interrupted by personal messages. Mr Stevenson says a wider range of paging services could be made available if the Government increases the bandwidth available.

Services in which subscribers nominate sets of shares and are then alerted if there is any significant movement have been running in the U.S. for some time. "These services are evolving and getting more sophisticated," Mr Stevenson says.

There are probably about

300,000 "wide area" pagers being used in the UK, mostly simple beepers to keep anyone from self-employed businessmen to doctors in touch. There are also believed to be another 200,000 simple on-site beepers, which cover a limited area.

Radio pagers are still very much a business tool, but could develop in the long term as a more general consumer product.

Mr Peter Akual, pager marketing manager at STC Telecommunications, says the market is growing by 25 per cent a year, with 5 per cent of that coming from replacements.

STC has been manufacturing radio pagers for four years. It believes that alpha-numeric pagers, although still a small slice of the market, will offer attractive growth potential, and plans to enter this market early next year.

Messages

Most British Telecom business involves its 250,000 radio beepers but it launched the first national alpha-numeric service in January with its Message Master and says interest has been considerable. The country is divided into 40 zones and the subscription depends on how many zones the customer wants to cover. The basic charge for one zone is 75p a quarter plus an initial £10 fee.

Messages can be relayed directly onto the Message Master screen from a phone either by tele or by telephoning the radio paging central number. It can handle up to 70 characters per message and store 300 characters. One customer is a Tilbury shipping agent who receives docking times and shipping instructions.

BT and Air Call face competition from Digital Paging Systems and Inter City Paging, which both have word paging. In addition to tone, voice, numbers and word pagers, Digital has introduced a service for cellular radio users which enables unanswered calls to be diverted to the word paging service.

Digital is also the carrier for a service by Futures Pager which aims to provide updates on commodity prices, foreign exchange and financial news.

The word pagers either display the information directly or receive updates by telephone. There are even pagers which draw attention to a message by vibrating, so that meetings will not be disturbed.

Earlier this month BT announced it was making radio beepers available free to transplant patients, so they can be alerted quickly by hospitals when a suitable organ becomes available.

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Slow move to divide TV's handsome gift

Private radio

PETER MARSH

OFFICIALS IN the radio regulatory section of the Department of Trade and Industry were presented with a handsome gift to mark the start of 1985. A large chunk of the radio spectrum left vacant by the shutdown of 408-line TV services in the VHF band was handed over for mobile radio services.

The DTI officials had the chance to give slices of this part of the spectrum to about 15,000 organisations in Britain that have licences for mobile radio.

Some 300,000 two-way radios, excluding citizens' band users and police and emergency authorities. The number has been growing at about 10 per cent per annum for several years.

The newly-available spectrum, in what is called Band Three (174-225 MHz), can accommodate 1,000 to 1,500 two-way radio channels, roughly doubling the amount of frequency space allocated to mobile radio.

Rather like a pools winner who has suddenly struck lucky, the DTI could have handed out everything in one burst, but it decided to conserve resources

by periodically allocating small sections of the frequency band. This part of the spectrum has to accommodate new uses for mobile radio for the next couple of decades, so officials have not rushed into allocations. They still have to make several key decisions about use.

Two broad courses of action are under review. First, the department is discussing whether to invite applications in the next few months for one or two national radio networks to use specific frequency bands for mobile users.

In such a network, a driver in Birmingham, for instance,

would be able to radio his central office in, say, London or Newcastle. The connection initially would be via a commonly-owned aerial, probably on top of a high building, in Birmingham, then through a series of radio "hops" using other aerials or by leased telephone lines to the central office.

A start would be expected in about two years and Air Call, one of Britain's leading suppliers of mobile-radio services, has already said it would like to operate such a system.

In the second broad initiative, DTI officials appear likely to follow the policy of the past couple of years by licensing shared trunking systems in the new portions of the radio spectrum that become available.

In such systems several

hundred mobile-radio users share perhaps five frequency channels. This is in contrast to conventional common-base stations, in which the service company has to group the demands of customers into one channel.

Trunking networks use computers to allocate users according to which out of several channels is available at the time—much as a small number of telephone lines are shared among thousands of callers via exchanges.

The result is more efficient use of the radio spectrum. According to Relcom, part of the Reliance group which operates a trunked radio system in London, customers have to

wait less time for a channel and so obtain a better service.

Relcom shares three radio channels among 320 users representing 57 customers. They are companies in fields such as car-repair and plant-hire.

Relcom says callers have to

wait for no more than 20 seconds for a free channel. A single channel shared by 100 users can often mean waiting times of two minutes, increasing to 20 minutes at busy times.

Relcom is one of four organisations awarded licences two years ago to run trunking systems in London in a section of the UHF band (around 440 MHz). The others were Storno, Pye, and a consortium of Motorola and Audioline.

Organisations that want this extra link can use the cellular radio services that started this year. These have a parcel of frequencies high in the UHF

band around 900 MHz. The second option is to subscribe to a common-base station service that permits some interconnection to the network. About 500 common-base station services in Britain accommodate 20,000 vehicles.

A small proportion offer interconnection under a special DTT licence. Officials are not keen on these because telephone callers calls generally speak for a relatively long time—an average of three minutes—blocking a frequency channel for others. Ordinary radio communications are normally marked by short, sharp exchanges that last an average of about 20 seconds.

Companies generally pay for mobile radio services in one of two ways. Some pay for their radios and obtain a DTT licence for a part of the spectrum. They may share with several dozen other users, particularly in the larger cities where frequency spectrum is in high demand.

Others pay a company that operates a common base station, either on the principle of single channels or the trunked approach.

Charges, which include rental of equipment and call fees, range from £7.50 to £30 a week for each radio set, depending on the part of the country in which the service operates and whether it permits interconnection to the telephone system.



A Marconi Scimitar set on the battlefield.

Hopping about to avoid enemy ears

Tactical radio

ADRIAN MORANT

A GROWING proportion of defence spending is being directed towards increasingly sophisticated communications equipment. It is difficult to ascertain the size of this spending because buyers insist, on secrecy, but the world market—including the U.S., France and the Common countries—for tactical radio equipment is believed to be about £230m to £250m.

Opportunities are also widening, as indicated by the recently reported deal won by Marconi with China for high-frequency naval radio equipment worth some £75m.

The aim is no longer just being able to communicate with friendly parties. With the increasing emphasis on electronic warfare the aims become more stringent. The objectives are to try to prevent transmissions being observed by the enemy; to ensure that, if detected, the enemy is able to obtain the least amount of intelligence; and to maximise the chances that communications traffic can get through under all circumstances.

When advanced radio surveillance techniques enabled radio transmitters to be detected quickly, it was possible to locate them using direction-finding techniques, to glean information from the signals and to jam them. With the more scientific military approach we are now in the "C3 era"—Command, Control and Communications—where ground and airborne forces and their weapons are closely co-ordinated.

Tactical radio relies on advanced microchip technology. One widely used technique is "frequency-hopping" in which a transmitter changes rapidly from channel to channel. Following a predetermined sequence, a friendly party, knowing the sequence that is being followed, can get into step and extract the message, but it is difficult for others to intercept.

Integrated

If the enemy is unable to intercept a signal it is unable to extract information, use direction finding equipment to locate the transmitter, or jam signals.

The first of the new generation frequency hopping radios come from Racal in the UK and Israel's Tadiran. Racal has received orders totalling \$85m for its Jaguar (Jamming/Awarded Radios) tactical radios, including \$20m from Oman. It has also been sold in the U.S. Other companies in the field include Rockwell Collins and Harris in the U.S., Thomson CSF (France), Philips' companies MEL (Belgium) and MEL (UK), as well as Plessey and Marconi.

The military needs to communicate between a great number of points, so equipment is purchased with the intention of being deployed in an integrated fashion. Man-packs carried by troops on foot; vehicle-mounted sets and those at battalion headquarters and elsewhere are integrated mainly by 2500ft links.

tegrated into a combat net radio to satisfy the needs of the highly mobile modern battlefield.

Plessey has done well with its System 400 range of integrated high frequency and very high frequency radios. Since it won the initial Raven contract in Australia worth A\$7m (\$5m), it has received a number of further orders, the latest of which is worth just over £1m. The total value of the Raven project, including production phases to be approved, could be as much as £210m.

Plessey is exploring other opportunities for its equipment in the Far East and elsewhere. It will be competing with the Selenia system from Marconi, which has had success in Portugal and the Middle East and is pursuing other opportunities.

Sophisticated

As large as these sums are, they pall into insignificance against the American Single Channel Ground and Airborne Radio System (SINGAR) project. This programme for re-equipping the U.S. armed forces could be worth as much as \$5,000m.

Increasingly sophisticated military command structures and large forces necessitate a growing amount of communications. There is a vast amount of voice, telegraph, data and facsimile traffic that has to be handled in much the same way as is carried out by a civilian business. One main difference, however, is that military subscribers are frequently on the move. For this reason a number of trunk communication networks have evolved such as Rita (France and Belgium), Deltamobile (Norway) and Pfarmigan in the UK.

These enable calls to be routed irrespective of where subscribers are located and whether, under wartime conditions, parts of a network may be out of action. They are fault-tolerant digital networks, similar in concept, using a mixture of transmission media, including cable and fibre optics; radio and microwave links.

Plessey Defence Systems is the Pfarmigan prime contractor and has received contracts worth more than £200m. Among the subcontractors are STC, which has provided transponder equipment, including fibre optics, and Mar-

Siemens AG-Telefon of West Germany and Marconi developed the Tricell UHF radio relay equipment which will form part of the transmission network.

When 38 vehicle-borne Pfarmigan installations were handed over to the First Armoured Division in Germany, Brig John Alcock, commander of the School of Signals at Blandford, Dorset, said this was the most sophisticated military communications system in the world.

The concept of fault tolerance is also of benefit in the civil field. STK (Standard Telefon of Melsheim), one of the main companies involved in the Deltamobile project, has provided a fault tolerant network spanning the country for the Norwegian Broadcast Company, where the nodes are interconnected mainly by 2500ft links.

Main mobile radio users

	Number of sets		Number of sets
Taxis, car hire	50,314	Surveyors	5,776
Electricity generating boards	19,657	Transport/traffic services (eg repair of traffic lights)	5,420
Common base stations (shared radio services)	18,718	Building contractors	4,148
Gas boards	16,973	Corporation transport	4,033
Water authorities	15,509	Motoring organisations	4,021
Message handling	13,106	Plant hire	3,151
Passenger transport	9,911	Haulage contractors	3,036
Telecommunications industry	8,006	Motor cycle couriers	2,972
Security companies	7,779	Garages, breakdown services	2,256
Agriculture	7,511	Civil engineering	2,171
Radio, TV, domestic appliance repair	6,039	Private mobile radio hire services	2,171
Post Office	6,000		

Source: Department of Trade and Industry.

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FT27/3

Mobile Communications 5

Technical advances have turned the 20-year-old idea of cellular radio into working systems

Channelling a way out of tight bands

Technology

GEORGE CHARLISH

THE BUSINESS executive might wonder why television pictures are coming from outer space and the computer is writing its own instructions. He cannot communicate by radio with anyone anywhere—preferably with a science fiction wristwatch device.

The fact is that, unlike telephone lines, radio systems cannot be duplicated indefinitely. New phone subscribers can be added to networks by running new lines to premises and activating spare switching capacity in the local exchange.

New radio channels cannot be added to wavebands in the same way. All those wanting to communicate have to fit the same medium-wave allocated waveband in the frequency spectrum—and within the operational area of transmitters. Once the band is full, that is the end of the matter.

Speech channels in mobile radio systems are ranged side-by-side across the band, each occupying a frequency. The number available is fixed, just as the medium waveband on a domestic radio—no more stations can be crammed in and many already overlap and interfere.

Ways have been devised by engineers to compress each channel into a smaller band-space. For example, modern tuning circuits produce sharper cut-offs between channels allowing them to be closer in frequency before interfering.

Limitation

Operating frequencies have also been pushed up over the past 30 years or so to 900 MHz, and higher frequencies accommodate more channels. Old television bands might be released, like band one in the UK. But these are palliatives; all the new channels are remorselessly consumed.

This limitation of channel coupled with monopoly ownership by state-owned bodies in Europe has led to restricted, expensive services and long subscriber waiting lists.

The answer to all this has been known since 1960, when Bell Laboratories in the U.S. mooted the idea of cellular radio. But 20 years had to elapse before the technology was available to implement it.

In a conventional mobile radio system, the service area is covered by a single high-power transmitter covering distances of 15 to 20 miles. The base transmitter and receiver aerials are usually sited on a tall building or hill.

This is because the high or ultra-high frequencies (VHF or UHF) travel in straight lines and signals from low earths can be blocked by large buildings, hills and the earth itself.

Such a system might be allocated 50 channels. But because such a powerful transmitter is used from a high place, the signals can go farther than expected, depending on the weather. This means the channels cannot be used again within perhaps 100 miles, for fear of interference.

The Bell answer allows those frequencies to be used over and over again. The service area is divided into "cells," often depicted on paper as hexagons, because they fit together nicely. Each cell might be one mile or two across and at its centre is a low-power transmitter, just able to cover the small area, and a base station receiver.

The channels used in a cell on one side of a town can therefore be used again on the other side, as the signals from one cannot reach the other because of the low power.

In this way, the number of channels available can be increased many times. They can be further increased by using aerials with 60 degree segments, which can selectively point signals in any of six directions to pick out a vehicle.

This keeps signals out of the other 300 degrees, and, on a statistical basis, increases the number of available channels by reducing mutual interference.

Reducing the size of the cells and the power of transmitters still further means more channel re-use becomes possible, at even shorter distances. In theory, city-centre radio traffic capacity can be pushed up almost indefinitely by using increasing numbers of closely spaced cells.

How are mobile users reached from a fixed phone network and what happens when a vehicle moves from one cell to another?

Calls are connected by leased telephone line or microwave to a controlling computer which forms a special kind of electronic exchange in an area. This in turn is linked to the normal telephone network.

The mobile user keys in a number and his equipment sends it to the cell base over a control channel which all the mobiles can permanently use. The cell base-station relays the number to the computerised exchange.

This first allocates a free radio speech channel and tells the mobile (via the control channel) in time to sit. Secondly, it dials out the number into the public network and connects the called subscriber over the newly allocated radio speech channel.

Someone in the public network calling a mobile dials a prefix code (to get into the cellular system) and the mobile's number. The call comes into the cellular system's computer/exchange which then pages all the mobiles over a control channel frequency. They all receive the data and compare the number with their own but only the matching one responds and is given a speech channel.

When a vehicle moves from one cell to another, the base station receiver in the new cell starts to get a stronger signal than the old one. A scanning receiver in each cell is constantly monitoring the signal strengths from all the cell's mobiles; the central computer makes the decision.

Prospects

If a call is in progress, the mobile is allocated a new frequency from the new cell's allocation and starts to work with the new cell's base station. The process, called hand-off, usually takes less than 0.5 sec and subscribers are unaware of it.

Cellular telephones are much like ordinary telephones except that, for safety's sake, the hand set does not have to be taken off hook for dialling.

Most vehicle equipment can also continually dial an engaged number until it answers. Or it can call a long or frequently used number via a single key.

Some have "loudspeaking" obviating handset use and allowing everyone in the car to join in.

The prospects for wristwatch sets are remote because of limits to battery technology, the need to transmit enough power to reach the base station receiver, and the time needed between battery charges.

If that time was 12 hours (for a nominal day's use), then present battery energy/size

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and the radiated power requirements for likely cell sizes imply that the batteries will continue to account for much of hand-held sets' size and weight.

But contenders are appearing. Excel Communications, a Manchester company, recently launched its Futurephone, weighing less than 1lb and measuring only 7in x 3in x 1.25in. With a standby battery pack and charger, the price is £1,995. It is the only British-made hand-held unit so far. The market has been dominated by Motorola, which pioneered the technology from the late 1970s.

First off the mark with data transmission in the cellular network is Racal Vodafone, which has announced an add-on unit for vehicle radiotelephones that allows computers, telex, electronic mailboxes and videowrite services to be reached from the car.

Data errors can arise through small hand-off breaks in transmission and where there is fading due to building shadows, hills and so on. Racal says its cellular data link control (CDLC) is a "universal" universal protocol based on established standards." Terminal apparatus like personal computers and printers can be connected directly to the new data interface, named Vodata.

Other mobile radio ideas are being looked at. For example, a pilot project in London by Reliance Communications Stornoway Telecoms and Motorola/Audiotelink.

A relatively new aspect, trawling, is the subject of four pilot projects in London by Reliance Communications Stornoway Telecoms and Motorola/Audiotelink.

Instead of private user groups each having a fixed channel frequency which it can never fully utilise, a number of channels is allocated to the area and each group is assigned one by computer when the need arises.

In theory, the allocated channels can be kept fully occupied, implying more users, or fewer channels.

An intelligent knowledge-based computer system will be set up to gather the data from information suppliers and generate messages for transmission in appropriate areas at the right times.

Route selection by a central computer is planned, each driver's needs being fed into the car terminal's memory for replay as needed. More costly systems might use map displays. The equipment is likely to be developed as several boxes so users will buy only what they need.

Cellular technology is in the limelight because the two UK systems, Cellnet and Vodafone, have just started. But they are only the public radiotelephone manifestation of mobile radio. Private systems, often simplex (one speaker at a time) still account for most of the equipment sold. They continue to be developed and aimed at service and sales fleets of vehicles.

The idea was suggested seven years ago when the BBC and the Transport and Road Research Laboratory planned to use road-side transmitters for aircraft, but mobiles and frequency allocations proved difficult.

The Alvey "demonstrator" project will use the cellular network and base sites. The aim is to bring updated accident, weather and similar data to drivers' attention within 15 minutes. It is hoped that mass-produced in-car equipment will not cost much more than an ordinary receiver.

An intelligent knowledge-based computer system will be set up to gather the data from information suppliers and generate messages for transmission in appropriate areas at the right times.

Air-to-ground station VHF/UHF communications may be overtaken before long by satellites, since Inmarsat and other bodies are taking an interest as well as the airlines themselves.

But fitting the necessary steerable dish, even on a 747, is something of a problem. Only much higher power satellites, reducing dish sizes, seem likely to provide the answer.

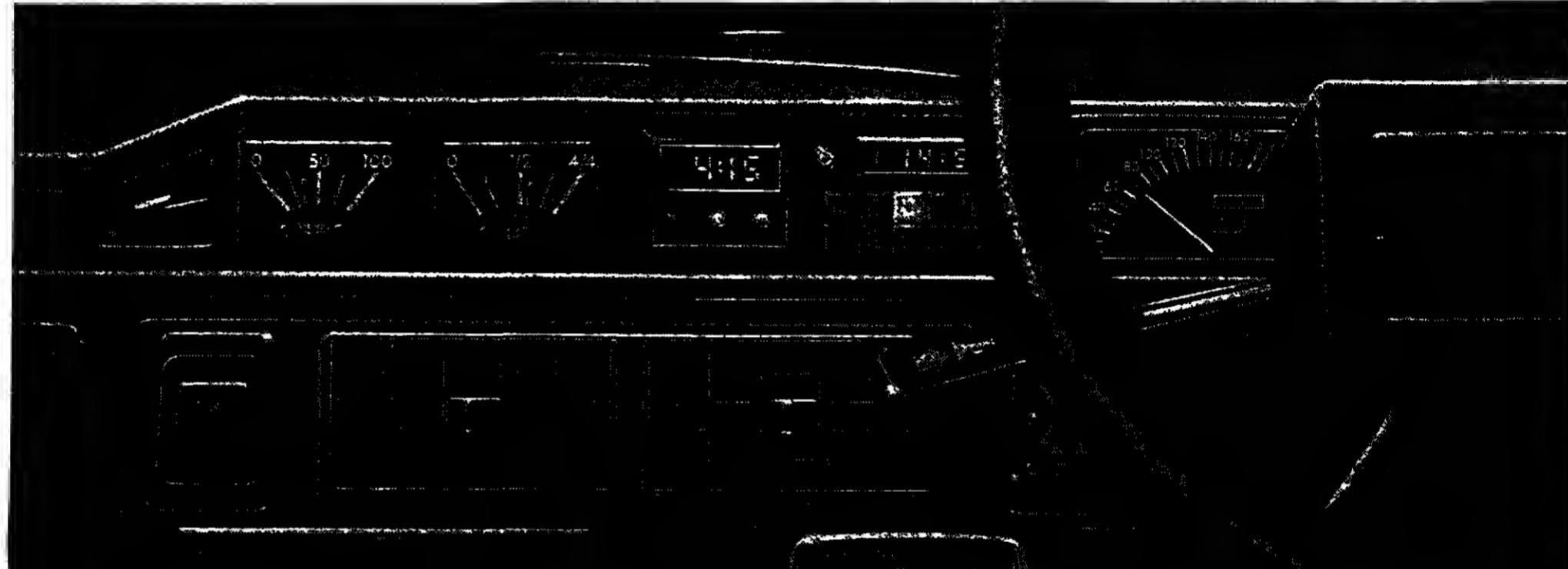
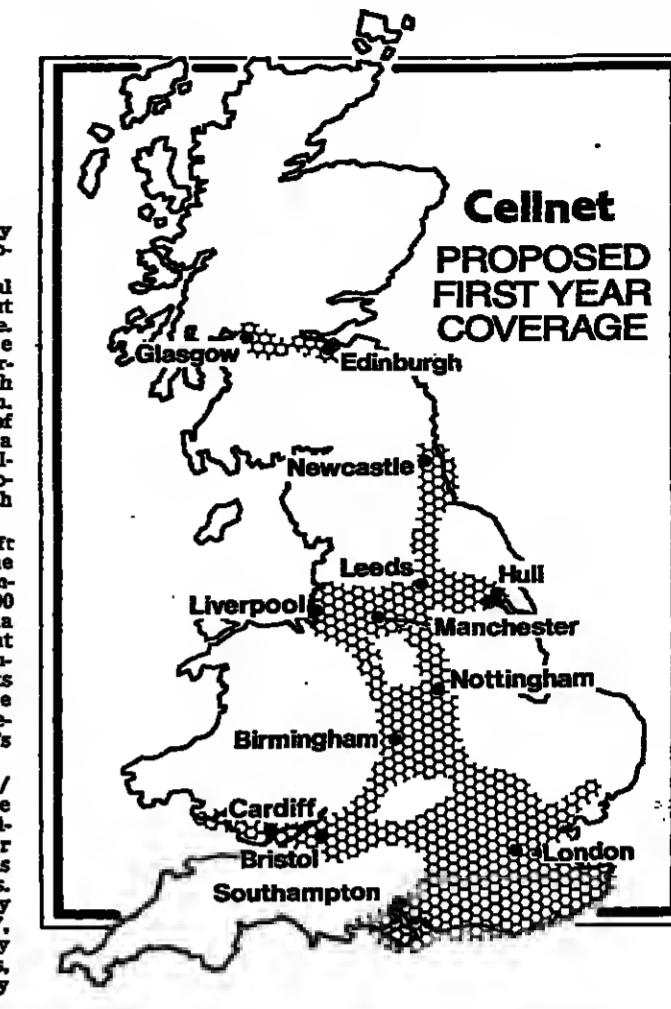
Aircraft and trains are likely future candidates for the radiotelephone.

Trains provide few additional problems apart from payment to cover public call-box use. British Rail is looking at the idea and one phone is in service on one of Radiotek's Stein services now available in Japan.

The potential popularity of the personal hand-held portable might prove a key factor, although use within the radio-screening box of a train couch could be difficult.

Telephoning from aircraft has already been on trial in the U.S. by Airfone, an Illinois company. It is claimed that 600 calls a day are being made from seven Northwest Orient aircraft. But the Federal Communications Commission thinks the service is too much of a luxury and unless buying privilege will terminate Airfone's license at the end of 1985.

Route selection by a central computer is planned, each driver's needs being fed into the car terminal's memory for replay as needed. More costly systems might use map displays. The equipment is likely to be developed as several boxes so users will buy only what they need.



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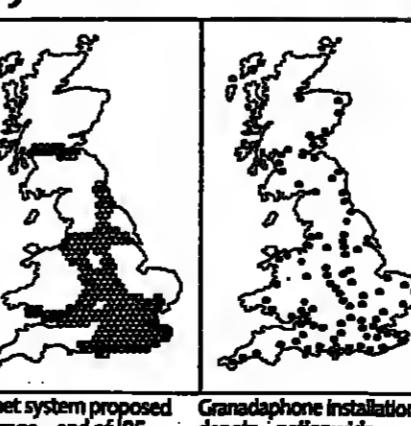
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Station equipment for the Nordic mobile telephone system.

Mobile Communications 7

Low costs bring services within reach of private users

A standard for the world

Scandinavia

DAVID BROWN

THE NORDIC Mobile Telephone Network has become the standard for the world, according to one Scandinavian public telecommunications official.

The 34-year-old network is the world's largest and quickest-growing mobile system, covering Denmark, Finland, Norway, and Sweden. With 154,000 subscribers, it is expanding at a rate of about 50 per cent a year, significantly exceeding original expectations.

The subscriber list is climbing at nearly 1,400 customers a week. To meet growing demand, the NMN has been forced into extensive cell splitting. Stockholm, which had five cells last year, now boasts 30 and plans to add a further 10 by the end of the year.

NMN offers a secretarial service to forward calls, take messages, book hotel accommodations, and send telexes.

Terminals are marketed by about 20 companies and range in cost between SKr 15,000 and SKr 20,000 (£1,400-£1,900). The

annual subscription charge has remained fixed in the face of an annual inflation rate of some 8 per cent—and the average yearly bill for subscriptions and calls comes to about SKr 4,700. With these relatively low costs, the uptake of Scandinavia's mobile telephone system is changing. The number of transport, factory and private subscribers has climbed to 45 per cent of the total, with business users accounting for the rest. Subscribers in industry are increasingly middle-level staff. The number of top executive users remains stable.

Scandinavia is perhaps the only region which has succeeded in bringing mobile communications within reach of the average telephone user.

Although Sweden's L.M. Ericsson telecommunications group remains a major and, in the eyes of the public communications body Televerket, highly reliable equipment supplier, it has come under increased competitive pressure in Scandinavia.

Ericsson's share of initial orders for the 900 MHz system to be installed next year in parallel with the existing network fell to 25 per cent. This compares with its 50 per cent share of earlier contracts for

the existing 450MHz system. Officials say the group has fallen behind in its capability to deliver base stations and pagers on time, and by its own admission Ericsson is well behind demand in the production of mobile terminals.

The strong Nordic market has provided an important base for expansion abroad. Ericsson has some 430,000 lines of subscriber capacity installed or on order in 16 countries.

Problems

The group is prime supplier of base stations and switches to Racal-Vodafone in the UK. It has also won strategically important orders in the U.S. It hopes to capture 30 per cent of the \$200m a year market in private non-wire business in the U.S. However, Ericsson is stretched thin in attempting to keep pace with demand in a number of markets at once.

The group's problems, with components suppliers, and overcapacity in ambitions forced a sharp drop in earnings last year. Profits fell by 10.7 per cent to SKr 1.57bn on sales of SKr 29.35bn.

Two other base station

suppliers have emerged for the 450 MHz system: Mobira, a subsidiary of Nokia of Finland, and Radio Systems of Sweden.

Sweden's Televerket, meanwhile, has plans to further expand its other mobile services, which include an advanced nationwide electronic paging system with some 40,000 subscribers. The subscriber can receive the telephone number of the person wishing to contact him transmitted over FM sub-carrier channels on a digital numeric display.

A cheaper "minicell" service is being introduced this year with a simpler beeper capability, transmitted over the 150 MHz frequency. The introduction has been held up because of hitches in delivery of equipment and software, but officials remain hopeful it will be popular in the general consumer market.

Late next year Televerket

plans to press ahead with its Mobiltex trunking system, which will transmit data, videotext, telex and telefax from a single mobile unit.

The Televerket, in addition to

its mobile telephone system,

operates a number of closed

radio telephone networks with

some 150,000 subscribers.

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Monopoly protests over innovative telephone system force ministers to back down

Tangled up in a cordless controversy

West Germany

JOHN DAVIES

THE CORDLESS telephone launched in West Germany as an innovative gadget allowing limited mobility has proved an embarrassment for the Bundespost and for Dr Christian Schwarz-Schilling, its minister.

It became the centre of political controversy and the skirmishing has given encouragement to advocates of a more liberal telecommunications policy.

Dr Schwarz-Schilling predicted a runaway success for the cordless telephone, dubbed Siemens late last year. It enables the user to telephone easily moving within a radius of 200 metres of a telephone handset by using a radio link in the 900 MHz frequency range.

But the EEC Commission in Brussels and the Economics Minister in Bonn were concerned about inclusion of the cordless telephone in the Bundespost's telecommunications monopoly.

Dr Martin Bangemann, the Economics Minister and leader of the minority Free Democratic Party in the government coalition, was keen to use the cordless telephone issue to battle for liberalisation.

Dr Schwarz-Schilling yielded, with an agreement that extension of the telecommunications monopoly to the cordless telephone was not intended.

A formal regulation will make it clear that cordless telephones offered by commercial companies could be linked to any handset, both the primary one and extensions. Under existing regulations, the Bundespost says private cordless telephones could already be linked to extension.

The Bundespost ordered its first batch of 25,000 Siemens sets from four manufacturers—7,500 each from Hagenau and Stabo and 5,000 each from Siemens and AEG—and further orders have been

placed. The sets ordered at DM 980 each, will be rented to users and the Bundespost expects a rapidly growing market. Technical development has presented some hitches, however, including doubts about security. At one stage the Bundespost returned sets to be re-examined.

Asian and U.S. sets have been reaching West Germany but the Government refuses to permit their use on the grounds that they can easily be "bugged."

The Bundespost is in another area of controversy with the decision of France and West Germany to postpone plans for a joint car cellular radio project.

This became entangled in industrial and political rivalries as leading French and West German companies joined to submit tenders.

It was decided to postpone the project as it should be based on digital rather than analogue technology and that this would require some further lengthy preparation.

Digital

The Franco-German project for a common system in the 900 MHz frequency range was to have become operational by about 1986. The joint digital technology project is envisaged for about 1988/89 or later. The postponement could give some companies time to refine their technological capabilities.

A consortium of Standard Elektrik Lorenz (a subsidiary of IT & T of the U.S.) and AEG of West Germany with Societe Anonyme de Telecommunications of France, has submitted a digital technology proposal for the original scheme. This consortium was joined recently by the state-owned Alcatel-Thomson group of France, which decided to forsake Siemens, its earlier partner.

Siemens is pressing on with the C-network car telephone system ordered by the Bundespost for West Germany some years ago. Trials will start in the autumn and the C-network is expected to be introduced next year.

This system, which has a cellular network structure, is designed to cater for 100,000 subscribers. Until a later digital system comes into operation it would allow a fairly sizable increase in car telephone usage in West Germany.

Little more than 20,000 car telephones are in operation in the country because of technical limitations. A future digital technology cellular radio system offers as many as 1m car telephones, with the price to motorists at only a fraction of the present cost.

Car telephones are seen as a market with good potential in West Germany, assuming the price is right. Market research has suggested that at least one motorist out of 10 would buy one, provided it is no dearer than a good quality car radio.

With saturation point near in traditional telephone installations, the Bundespost is giving higher priority to mobile varieties of telephone.



FDP leader Martin Bangemann used the telephone issue to battle for liberalisation.

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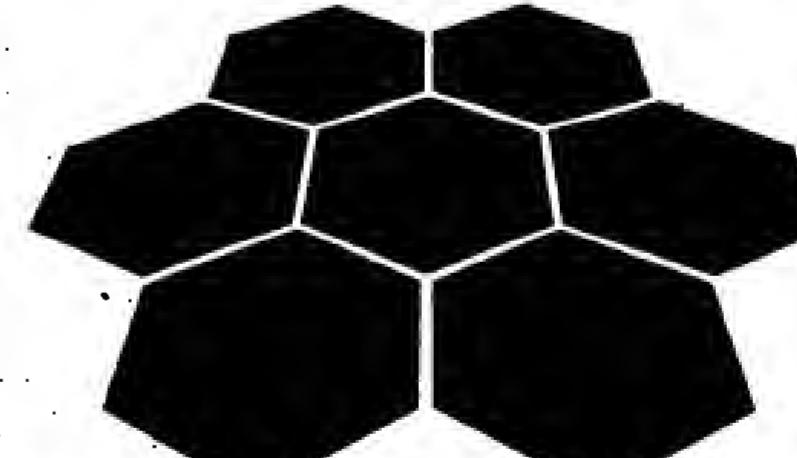
Cellnet, Britain's leading cellular telephone system is serving the 1985 London Marathon.

Using the Cellnet system's unique conferencing facility, race organisers will keep in touch with the television crew and the lead cars. Simultaneously.

In addition Cellnet phones will be used for relaying safety information and timings.

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Mobile Communications 8

Cities with Cellular Radio in Service

Atlanta: BellSouth Mobility, Communications Industries.
 Baltimore-Washington: Bell Atlantic, Cellular One, Continental Telecom, Metromedia, Washington Post.
 Buffalo: NYNEX, Western Union.
 Chicago: Ameritech Mobile Communications, Metromedia.
 Cleveland: GTE Mobilnet, MCI Communications.
 Cincinnati: Ameritech Mobile Communications, Western Union.
 Dallas-Forth Worth: LIN Broadcasting, Southwestern Bell Mobile Systems.
 Denver-Boulder: MCI Communications, U.S. West's Newvector Communications.
 Detroit-Area: Detroit Cellular Telephone, Ameritech Mobile Communications.
 Honolulu: GTE Mobilnet.
 Houston: LIN Broadcasting, GTE Mobilnet.
 Indianapolis: GTE Mobilnet, Mobile Communications of America, Western Union.
 Kansas City (Missouri & Kansas): Southwestern Bell Mobile Systems.
 Los Angeles-Anaheim: Pacific Telesis, Pactel Mobile Access.
 Miami-Fort Lauderdale: BellSouth Mobility.
 Milwaukee: Ameritech Mobile Communications, American Cellular Telephone, Cellular Mobile Systems.
 Minneapolis-St Paul: Continental Telecom, MCI, U.S. West's Newvector Communications.
 New Orleans: BellSouth Mobility.
 New York: NYNEX, LIN Broadcasting, Metromedia.
 Philadelphia: Bell Atlantic, LIN Broadcasting.
 Pittsburgh: Bell Atlantic.
 Phoenix: U.S. West's Newvector Communications.
 Portland: GTE Mobilnet.
 Seattle-Everett: McCaw Communications, U.S. West's Newvector Communications.
 St Louis: Southwestern Bell Mobile Systems.
 Tampa-St Petersburg: GTE Mobilnet, U.S. West's Newvector Communications.

Research: Rivka Nachon

The U.S.

PAUL TAYLOR

IN TWO years, three out of four Americans will have access to cellular communications. Only 18 months after commercial introduction in the U.S., Chicago, cellular mobile telephone systems are already beginning to test their promise of revolutionising mobile communications.

The pace of expansion is breathtaking. Cellular systems are in operation or about to go on-stream in 38 urban areas compared with four a year ago. In most areas although there are marked differences, sign-ups have at least matched the industry's expectations.

With the price of equipment plunging, and competition between cellular subsidiaries of the seven Bell Telephone holding companies and their rivals hotting up, the range of services is expanding while the cost to users falls.

Almost 100,000 people mostly professionals like doctors and lawyers, small businessmen and salesmen — have cellular systems in their vehicles. By the end of the decade conservative forecasts put the number of subscribers at about 1.7m. Some

experts predict several times that number.

By 1994, a decade after cellular's debut in the U.S., Mr Cliff Beams, telecommunications marketing and policy studies manager for management consultant Arthur D. Little, estimates there will be 3m subscribers in the U.S. and 7m worldwide. Based on an average monthly telephone bill of \$150 a month, the U.S. cellular market will have grown to a \$3.4bn a year industry.

Most estimates add about \$400 a year from sale of equipment to the public and \$400 for the antenna, computers, building and other aspects of the transmitting and receiving systems.

If the projections prove correct, the cellular telephone industry in the U.S. could turn out to be one of the fastest growing new businesses ever. The sum total of the potential market has only been scratched.

Mr Robert Edelman, general manager for cellular systems for AT&T's consumer products division, one of the main equipment suppliers estimates that before the century is over, one in every four of five cars could have cellular phones. Currently there are about 125m vehicles and 35m trucks in the U.S.

The system operators and equipment makers, who supply not only phone units but stations and transmitters, are

scrambling for a share of the expected bonanza. There are more than 20 companies supplying cellular telephone equipment in the U.S. including Motorola, AT&T, Northern Telecom, GE, Harris, Ericsson, Oki, Panasonic and NEC.

Manufacturers like market leader Motorola offer ranges including models with features such as transfer call, speakerphone and other facilities costing more than \$3,000. Oki Electric makes equipment in its own suitcase for just under \$2,000 while Motorola has a \$4,000 hand-held model.

AT&T sells three cellular models including a "hand-free" unit with a microphone that can be placed on a sun visor. Suggested retail prices range from \$1,600 to \$2,020 plus installation and labour costs.

Competition and a flood of imports are sending equipment prices plunging. A few months ago the average price of a cellular telephone was about \$2,500. Today it is about \$1,500, and equipment costing less than \$1,200 is becoming available. In five years' time analysts believe the price will have dropped well below \$1,000.

The battle for the U.S. market was highlighted last year when Motorola filed an anti-dumping complaint against Japanese

manufacturers, whose imports of cellular phones into the U.S. in the first nine months last year totalled about \$85m.

A preliminary decision by the U.S. International Trade Commission ruled that Japanese imports may be harming home manufacturers, so the U.S. Commerce Department is continuing the investigation. If Motorola wins rulings in its favour, penalty duties could be imposed on imports from Japan.

Increasing competition between the Bell subsidiaries and their rivals is also forcing cellular service costs down.

Charges, which average between \$150 and \$200 a month could drop to about \$80 over five years.

It was to spur such competition that the Federal Communications Commission decided to allocate two cellular licences in each main area — one to the local telephone company and another to an independent system operator.

The FCC received almost 150 applications for licences in 54 "second tier" cities, forcing it to threaten a lottery for allocating licences, before bidders settled into partnerships in resolving the problem. Many of these partnerships brought together small entrepreneurial companies and major independent telecommunications and media groups like GTE Telenet, MCI and Metromedia.

Such price competition could pose problems for some operators who have invested heavily in network. The cost of providing a service averages about \$12m per area, or about \$300,000 per cell.

But costs can vary dramatically. GTE Mobilnet, a subsidiary of GTE, which has a 26.7 per cent stake in the Portland, Oregon system which started last month, says the system cost \$4.5m. In contrast, in New York NYNEX has built a 20-cell network costing \$25m and capable of handling almost 100,000 simultaneous calls.

New York's market is probably one of the largest in the nation. NYNEX is chasing a market which could be worth more than \$400m within five years. The sometimes patchy acceptance of the new service could prove another pitfall for system operators. "It varies from market to market," Mr Beams of Arthur D. Little says. "Some cities have developed quickly because of aggressive

Metromedia has invested heavily in cellular and is producing perhaps the fiercest battle for the Bell System, with its Cellular One service in Baltimore-Washington, started in December 1983 — before Bell Atlantic's Mobilnet systems got its own service into operation.

Both Bell Atlantic and Cellular One have begun offering special packages for \$99 a month, including leased equipment and up to two hours' worth of peak-time calls, together with an option to buy the equipment after three years.

Last month Bell Atlantic introduced what it called "the cellular industry's first consumer-priced package." For \$49.95 a month, this offers a car phone and 100 minutes free off-peak calls.

The company says this will broaden appeal. Customers will be charged 15 cents a minute in off-peak hours after using up their free time and 65 cents a minute during the 7 am to 7 pm period Monday to Friday.

Mr Brian Wood of Bell Atlantic says the price cuts are a result of the "brutal" competition in the Baltimore-Washington market. "We were the first wire company to experience competition and we were the only one second into the market. I expect price cuts in other markets," he says.

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There will be some casualties, particularly among equipment manufacturers where there is talk of an industry shakeout.

marketing while others have been slower."

In Chicago, extensive testing of cellular technology by AT&T and Motorola generated interest and enormous initial demand which far outstripped projections but has reportedly slowed. In New York and Los Angeles pent-up need has driven initial demand.

Mr Reed Royalty, president of external affairs, Pactel Mobile Access, was started up in June in a potentially large Los Angeles market, says subscribers in the first six months to 15,000.

This was almost twice initial projections and he says growth is continuing.

But in other areas like Indianapolis the response has been less enthusiastic. This year, only a few mobile phones in Indianapolis Telephone Company's \$7m cellular system went into operation, the company fired its president and chairman, and subscribers had fallen short of projections.

Pace-setter

In many cases marketing proving to be the key to success. Some companies have made strings of agents and salesmen. Pactel, have encouraged word-of-mouth sales.

Among the resellers, Tandy Corp, the computer and electronic goods manufacturer and retail outlet, is emerging as a pace-setter. Tandy has signed cellular telephone marketing agreements with wireless and radio common carriers in all the top 30 U.S. markets.

"Through its nationwide chain of 7,000 Radio Shack stores, Tandy offers one-stop shopping for radio telephones. It also installs and services cellular telephones and, under agreement with the system operators, provides a personal mobile telephone number at the time of purchase.

Cellular mobile telephone service in the U.S. is moving rapidly from a start-up phase into widespread commercial operation. Already investors are looking for the winner and losers in a business which has still to fulfil its promise.

There will be some casualties, particularly among equipment manufacturers where there is talk of an industry shakeout.

Big nine go abroad for more growth

Japan

ROY GARNER

FOR JAPAN'S nine manufacturers of car telephone equipment, overseas markets — notably the U.S. — are becoming of primary importance.

The home market has shown steady growth and is characterised by high-quality equipment, but expansion is limited by technical standards and the powerful control of Nippon Telephone and Telegraph, which handles equipment purchases and decides user fees.

Makers are facing a delicate situation, however, owing to a dispute with Motorola, which has complained to the U.S. Commerce Department and the International Trade Commission that the Japanese are selling in the U.S. at less than fair value.

In the Japan market, Motorola is the only foreign supplier but provides less than 1 per cent of overall NTT purchases. This imbalance between low foreign participation in Japan and Japanese activity abroad comes at a time of trade frictions over telecommunications business in general. It accounts for the low profile being adopted by Japanese car phone companies.

Monopoly

Another result of the Motorola action has been a decision by the Japanese to increase production at U.S. subsidiaries and boost their purchases of local parts to pre-empt calls for protectionist action within the U.S. Old Electric Industry, for example, has an annual production capacity of 70,000 units at its Atlanta plant, and January Fujitsu opened a subsidiary in Dallas.

In spite of strong U.S. pressure on Japan to open markets there seems little chance that the removal of NTT's legal monopoly, scheduled for April 1, will rapidly bring new opportunities for foreign companies or any change in the shape of the market.

Japan's cellular radio network began in December 1979 and approximately 300 relay stations have been set up.

providing service within all the main cities. It has proved effective in overcoming the problems of radio communications in dense urban areas.

The Japanese carrier frequency is 900 MHz, although a 450 MHz system was used during research. Single-channel communications are within a 25 KHz band width, which, in the case of Tokyo, allows for about 50,000 users. NTT is developing a 12.5 KHz system which would allow doubling of capacity. This upgrading is not scheduled to be introduced until about 1989.

Motorola is believed to be working for this expansion before attempting a more aggressive market entry.

NEC and Matsushita provide about 60 per cent and 40 per cent respectively of phone equipment purchased by NTT, which reflects the level of funding supplied by the two companies for the original research.

NTT selected five manufacturers as possible suppliers in August 1982 and, in addition to NEC and Matsushita, now purchases a small number of relays from Nihon Keisan, Fujitsu, Mitsubishi Electric and Motorola. In the 1983 financial year, the NTT purchase price for a complete equipment set is estimated to be \$300,000 (£16,000).

NTT says that its allowance of purchase between the companies depends upon competitive price and quality. European companies were unable to offer a competitive product, while NTT customers are satisfied, it adds.

Given the Japanese reluctance to hold back by the quality and operating costs of phone equipment, NTT must pay a \$30,000 connection fee, \$10,000 a month for a relay, \$20,000 a month for a base station, \$10,000 for a local daytime call connected with NTT for three minutes in an ordinary line.

Proposed rates for Japanese users are being worked out. NTT's proposal to reduce the total charge to £26,000, bearing in mind that the cost of the equipment is still unlikely to attract customers outside the core residential groups, which are predominantly in the business world.

With Japan's massive market deficit, there is little chance of the Government allowing significant rate increases, so no dramatic growth in the car phone market can be expected in the near future.

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